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# Management Assessment. Areawide Waste Treatment Management Plan for the Greater Houston Area (Section 208, P.L. 92-500)

Houston-Galveston Area Council, TX

Prepared for

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# MANAGEMENT ASSESSMENT

JULY 1977

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HOUSTON-GALVESTON AREA COUNCIL

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The specific purpose of this report is to identify current and future capabilities, authorities, and limitations regarding the performance of required wastewater management functions as defined in Section 208 of P.L. 92-500. These functions are grouped in 10 categories for purposes of analysis. Past performance and capability of various agencies in performing these functions were investigated using 5 criteria.

Chapter VI summarizes the results of an attitude survey and interviews with key personnel involved in the Houston Area 208 process.

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# MANAGEMENT ASSESSMENT

AREAWIDE WASTE TREATMENT MANAGEMENT PLAN
FOR THE
GREATER HOUSTON AREA
(SECTION 208, P.L. 92-500)

JULY 1977

REVISED NOVEMBER 1977

PREPARED FOR THE HOUSTON-GALVESTON AREA COUNCIL
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TABLE OF CONTENTS


| | | PAGE |
|---|---|---|
| CHAPTER I - | INTRODUCTION | |
| | General | I-1 |
| CHAPTER II - | METHODOLOGY | |
| | General | II-1 |
| CHAPTER III - | FUNCTIONAL REQUIREMENTS AND GUIDELINES | |
| | General | III-1 |
| | Federal Requirements and Guidelines | III-1 |
| | State Guidance for Section 208 Plans | III-6 |
| CHAPTER IV - | EVALUATION BY AGENCY AND 208 FUNCTION | |
| | General | IV-1 |
| | Environmental Protection Agency (EPA) | IV-2 |
| | Texas Water Quality Board (TWQB) | IV-5 |
| | Texas Water Rights Commission (TWRC) | IV-10 |
| | Texas Water Development Board (TWDB) | IV-12 |
| | Texas Department of Water Resources (TDWR) | IV-14 |
| | Texas Department of Health Resources (TDHR) | IV-19 |
| | Houston-Galveston Area Council (H-GAC) | IV-21 |
| | San Jacinto River Authority (SJRA) | IV-24 |
| | Gulf Coast Waste Disposal Authority (GCWDA) | IV-27 |
| | Counties | IV-31 |
| | City of Houston | IV-34 |
| | General Law Cities | IV-38 |
| | Home Rule Cities | IV-40 |
| | Local Water Districts | IV-41 |
| CHAPTER V - | SUMMARY EVALUATIONS AND FINDINGS | |
| | Introduction | V-1 |
| | Planning | V-1 |
| | Operation and Maintenance of Facilities | V-3 |
| | Design and Construction of Facilities | V-5 |
| | Finance | V-7 |
| | Permitting and Regulation of Point Sources | V-9 |
| | Permitting and Regulation of Nonpoint Sources | V-10 |
| | Standard Setting | V-12 |
| | Enforcement | V-13 |
| | Monitoring | V-15 |
| | Management and Coordination | V-16 |
| CHAPTER VI - | SUMMARY OF ATTITUDE SURVEY AND PERSONAL INTERVIEWS | |
| | General | VI-1 |
| | Attitude Survey Introduction | VI-1 |
| | Survey Results | VI-2 |
| | Summary of Conclusions | VI-4 |
| | Key Interviews Introduction | VI-11 |
| | Key Interview Results | VI-11 |

# CHAPTER I - INTRODUCTION

## General

This report is based on data collected for this project as well as existing information which was cataloged during the development of the earlier report, Current Wastewater Management, May, 1977. The specific purpose of this report is to identify current and future capabilities, authorities, and limitations regarding the performance of required wastewater management functions as defined in Section 208 of P.L. 92-500. These functions have been grouped into ten categories for purposes of analysis. Past performance and the capability of various agencies in performing these functions were investigated using five criteria which were the subject of review by the Technical Advisory Committee, Citizens Advisory Group, and Planning Advisory Committee. This report addresses these ten categorical functions and summarizes existing entity types and how they presently deal with each function.

The Current Wastewater Management report catalogued a total of 36 agencies or entity types. A review and selection process was conducted to determine which agencies had characteristics that would warrant further detailed assessment. Agencies were removed from further consideration for a major 208 management role when several evaluation factors (legal, financial, administrative/technical, and jurisdictional boundaries) were not possible. Examples would be the federal agencies who will continue to perform their designated functions but would not be expected to have any implementation authority. State agencies having indirect involvement in water quality (General Land Office, Texas Railroad Commission, Public Utility Commission, and others) were also not assessed. Similarily, regional and local entities were also identified that did not have legal authority, financial capability, or adequate administrative/technical resources. An example of a regional agency not assessed would be Clear Creek Basin Authority.

Chapter II - METHODOLOGY is an overview of the sources of information, the necessity for identifying and understanding 208 functions, and an overview of the assessment process. Descriptions of the ten basic management functions as prescribed in the law and the state requirements and guidelines are presented in Chapter III - FUNCTIONAL REQUIREMENTS AND GUIDELINES. A management assessment for each agency by function is provided in Chapter IV - EVALUATION BY AGENCY AND 208 FUNCTION. The purpose of these detailed agency assessments is to document the rationale and factors involved in evaluating agencies' capabilities, authority and limitations. Chapter V - SUMMARY EVALUATIONS AND FINDINGS summarizes the results of assessments regarding important agency or agency types by function with each function being evaluated according to five criteria. The results of the attitude survey and interviews with key personnel involved in the Houston Area 208 process are contained in Chapter VI - SUMMARY OF ATTITUDE SURVEY AND PERSONAL INTERVIEWS.

# CHAPTER II - METHODOLOGY

## General

The assessments contained in this report were produced as a result of a three-step analytical process. The first step involved delineating the ten major 208 functions and five evaluation criteria. These functions and criteria had been identified in the earlier management phases of this project as crucial to the development of the 208 options and the evaluation of management alternatives. The ten major functions cover all the areas in which responsibilities must be allocated among the various public entities that impact upon wastewater management treatment in the Greater Houston designated area. The five evaluation criteria were also identified to ensure thoroughness and accuracy during the evaluation process.

Prior to analytical evaluation of existing agencies and identification of roles, the ten functions must be explained in some detail so that their relationship to the analysis of the management entities can be fully understood. Thus, the first required task was to detail each function and explain the basic definitional parameters. Once this was accomplished it was then possible to take these ten functions and use them to assess the capacity of the major public entities to respond to these functions, given existing authority and limitations imposed by Texas law. In addition, the evaluation criteria of legal, financial, administrative/technical capacity, public accountability and political acceptability were analyzed for each type of agency concerned with these functions.

Using the ten 208 functions, an assessment of various public entities ranging from EPA to local water districts was undertaken in Chapter IV. This evaluation made extensive use of the data catalogue and information collected during its development. Supplemental resource material was also drawn directly from Texas statutes so that an accurate portrayal of legal restraints and potentials could be introduced into the evaluation process. Separate, concise evaluations of the key public entities were then prepared. These evaluations use the ten 208 functions as a means for evaluating the legal, financial, and management capacity of the agencies. Comments regarding public accountability and general political acceptability were then compiled. The assessment identifies capabilities and limitations should an entity perform a part of the management of the 208 designated area.

The last step in this evaluation process was to take each of the individually prepared assessments and compile them in order to develop a vertical understanding of existing practices and potentials within each of the functional areas. This was performed in Chapter V by consolidating all Chapter IV agencies into an assessment by function. It was therefore possible to discuss, for example, the current wastewater management planning situation, highlighting those entities that are significantly involved in that particular function. In addition, it was possible to identify where existing legal and other conditions could encourage or prevent future responsibilities from being allocated in defining the scope of the final 208 management options. As a result an assessment was prepared which evaluated each one of the ten functions and discussed present practices in each of the functional areas.

# CHAPTER III - FUNCTIONAL REQUIREMENTS AND GUIDELINES

## General

This section of the report summarizes federal, state and local requirements and guidelines for areawide wastewater management. In general federal requirements emanate from Section 208 of PL 92-500 and are interpreted in guidelines prepared by EPA. State of Texas requirements and guidelines have been promulgated from the Office of the Governor and the Texas Water Quality Board. These requirements are of special significance since they define the basis for evaluating current and future performance of functions. Local guidance was provided by the Technical Advisory Committee, Citizens Advisory Group, and Planning Advisory Committee which adopted assessment criteria. Without these federal, state and local requirements, it would be difficult to evaluate agencies' roles and generally measure performance. This chapter is, therefore, divided into federal, state and local requirements sections.

The objective, at the conclusion of the total Management Analysis effort, is to define implementable 208 system alternatives. A system could be a single existing entity, a board of existing agencies, a formal cooperative, or variations of the above. It is not the purpose of this document to identify either broad management options or entities with specific roles in future alternatives. The entities could be State, regional, or local and can assume multiple functional responsibilities, share responsibilities, or divest itself, as appropriate, of some current functional responsibilities.

## Federal Requirements and Guidelines

The EPA requirements contained in Section 208 of PL 92-500 are the basis for this program. These requirements state that particular management powers are necessary in order to have an effective and approveable areawide 208 wastewater management plan. The list of powers and functions noted below is derived from the listing contained in the Federal Water Pollution Control Act Amendments Section 208(c)(2)(A)-(I) as well as Section 208(b)(2) and 204(b)(1)(A)-(B). The functions listed below, when grouped together in a logical manner satisfy the 208 requirements. These functions are as follows:

1. Planning

2. Operation and Maintenance of Facilities

3. Design and Construction of Facilities

4. Finance

5. Permitting and Regulation of Point Sources

6. Permitting and Regulation of Nonpoint Sources

7. Standard Setting

8. Enforcement

9. Monitoring

10. Management and Coordination

A series of guidance memoranda have been issued by EPA further clarifying the program requirements and providing a framework for this evaluation.

The paragraphs below describe these functions. Later sections provide discussions on the activities and levels to which these functions are fulfilled and areas where additional responsibilities and authorities are required to meet the 208 requirements.

Planning

The wastewater planning agency will have a significant responsibility in the required overall coordination of the development of water quality facilities and resources in the region. The agency given this role must, therefore, be aware of wastewater treatment programs at all governmental levels--from area to basin to state to federal--in order to maintain an efficient interrelationship among these efforts as they affect the region. In addition, the planning agency must provide a means for public participation throughout the planning process. There are also certain specific administrative, management, and technical functions which must be carried out. These include the collection and analysis of planning data and preparation of environmental and socio-economic impact projects of such factors as: population, land use and density loading ratios, economic development indicators, and building permits. The planning agency also must be able to review and place in context the wide range of ongoing planning studies (in transportation, air quality, etc.). Finally, the planning agency must be able to provide technical planning assistance to those communities within the designated area which need such services in order to fully participate in the 208 implementation process.

## Operation and Maintenance

To effectively control wastewater pollution, the designated management agency or management system must be capable of operating and maintaining area wastewater treatment facilities under its jurisdiction. This includes the establishment and review of operating standards, schedules for facility inspection, and a system for reporting performance. The operating agencies also must be able to coordinate employee recruiting and training and evaluate all operations personnel. Operators are also responsible for the development of criteria for repair, parts replacement, the implementation of a maintenance schedule, and an inventory record keeping system. EPA has noted that the nature of this role allows for multiple agency participation.

## Design and Construction

EPA has indicated that multiple agencies may design and construct facilities. However, 201 funds may only be granted to a designated agency for projects which conform to the 208 plan. It also should be noted that, Section 208 (b)(2) requires that any 208 area plan prepared shall include the identification of treatment works necessary to meet the anticipated municipal and industrial waste treatment needs of the area over a twenty-year period. These treatment facilities shall have construction priorities established for the initiation and completion of all treatment works. To fulfill this role designated agency or agencies must be able to directly, or under contract, design and construct wastewater treatment works. This is a basic 208 function, it therefore requires that designated agencies must be able to conduct or contract for feasibility studies, preliminary engineering analysis and develop final plans for specifications and monitor construction.

## Finance

Section 208 (c)(2) requires that in order to implement the plan the designated implementation agencies have specific financial authority including ability to accept and utilize grants, raise revenues and incur short and long term indebtedness. In addition, it must be able to implement user charges and industrial cost recovery systems in order to comply with specific 208 requirements and requirements of Section 204 of PL 92-500.

The management agencies must have the capacity to handle the massive costs associated with developing and operating wastewater treatment facilities. This process often involves complex financial and intergovernmental arrangements. The designated agency and the overall management system thus must have flexible financing authority to accomplish the region's overall wastewater treatment goals.

## Permitting and Regulation of Point Sources

The prime point source water pollution regulatory system is the federally established and EPA controlled NPDES program. The selected 208 management system must comply with the federal program and utilize procedures to assure the best long-range point source solutions regarding facility location, expansion, and modification. The State has through the TWQB administered this program in the past. Development practices today and in the past have often resulted in the development of land in advance of centralized wastewater treatment services. In some areas this process has resulted in the proliferation of small treatment entities and facilities which today pose difficult management and operational problems and to some extent inefficiencies. The questions which must be faced as part of the 208 planning process are whether consolidation is required, preferred, and/or possible, and how to handle existing and future development and the associated point sources.

In granting NPDES permits EPA or the State must require that permit applicants have the authority to refuse to receive any wastes from any municipality or subdivision thereof, which does not comply with provisions of the plan. In addition they must have the authority to accept industrial wastes.

## Permitting and Regulation of Nonpoint Sources

The control of nonpoint sources may take various forms. The control system may be a technological solution (i.e., a stormwater treatment system) or it may be tied to management solutions consisting of land development controls (e.g., subdivision plat approval). If a technological solution is pursued, then a permit system may be established for the treated effluent. If a solution is pursued at the land activity level, the control mechanism will most likely be placed under an ongoing municipal permitting system such as building permits. As long as the control strategy has clearly identified the agency and the point in the review process where conformance with nonpoint source abatement strategies will be evaluated, PL 92-500 is silent regarding the precise form.

EPA has recently issued proposed regulations extending the NPDES program to major stormwater outfalls and agricultural sources. Although this aspect has not been fully implemented to date, future implementation is expected to provide a basic permitting format for substantial dischargers. A management system at the local level which includes control and review of proposed development may substitute for the NPDES permit system.

Standard Setting

The standard setting function is presently vested in the Federal and State governments. The 208 program anticipates that regional entities and local governments who legally can will participate through the 208 planning process and its outgrowth in developing and recommending water quality standards. To be enforceable and implementable, the standards will be adopted after appropriate public input and State and federal concurrence.

Enforcement

The major enforcement activities concern compliance with the 208 plan and adoption and implementation of rules and regulations to implement the technical, management and engineering aspects of that plan. Thus, as stated in the FWPCAA, the management agency or coordinating agencies must be able, if necessary, to refuse to accept industrial and municipal wastes when appropriate as required in Section 208 (C)(2)(H)-(I). The agency must, also be capable of using a broad range of procedures to enforce the plan ranging from civil and criminal sanctions to withholding of funds or grants.

Monitoring

Numerous federal, state and local entities presently monitor water quality. The purposes for monitoring vary among these entities. The management requirements of 208 envision a coordinated monitoring program which is aimed at determining permit compliance as well as field monitoring of compliance with nonpoint regulation. Thus, monitoring will provide the technical input necessary for enforcement of operating procedures. Yet, it is clear that the management system will need careful delineation of responsibility for this function in order to avoid costly duplication of effort and oversights.

Management and Coordination

The designated management agency or system must be able to coordinate its activities with other government entities and where appropriate, enter into intergovernmental agreements to effectuate elements of the 208 plan. Thus, the designated agencies as well as the overall management system, must before approval, assure the region that the many entities involved in treating point and nonpoint sources are functioning in concert. Simply stated, it must be shown that the plan can be carried out in an orderly manner and that a system of available powers to solve wastewater problems has been logically configured.

## State Guidance for Section 208 Plans

State guidelines must comply with federal 208 requirements. The Texas Water Quality Board* and the Governor have both generated guidelines regarding the 208 management planning process. Presented below are descriptions of these state guidelines.

### Office of the Governor

The Governor is the primary decision maker in the State for 208 management plans. The Governor identified eligible areas within the state that have "substantial" water quality control problems. H-GAC was designated as the planning agency for the Houston area, fulfilling the EPA requirement that the agency be composed of locally elected officials who, in combination, have jurisdiction over the entire designated area. The Governor appoints representatives to the areawide Planning Advisory Committee through his Special Advisor to the Governor on Natural Resources per Executive Order D.B. 18.A. The Governor's Office and the TWQB are represented with members on that Committee.

The Governor must review the initial plan and, upon approval, designate an areawide waste treatment management agency(ies) with necessary authority to carry out the plan. The Governor annually certifies updates of the plan.

In Executive Order Number 18-A from the Office of the Governor, several items provide guidelines on the H-GAC management plan development. These guidelines can be summarized as follows:

- Use to the fullest extent, consistent with legal authorities, the capabilities of existing agencies and entities to perform 208 functions.
- Minimize any possible duplication of effort or jurisdictional conflict while attempting to meet requirements of 208 functions.
- The Texas Water Quality Board shall review each areawide waste treatment management plan and submit to the Governor, through the Special Advisor on Natural Resources, its recommendations concerning certification.

*The State has recently consolidated the three water-related agencies. Where TWQB, TWDB, or TWRC are identified, it should be considered to be the single agency, the Texas Department of Water Resources.

- The Texas Water Quality Board shall develop criteria and procedures in the form of State guidelines which shall include but not be limited to the following:

  - Determination of potentially eligible areas
  - Designation of planning areas
  - Designation of areawide planning organizations
  - Grant application procedures and criteria
  - Grant reporting procedures
  - Plan approval and submission
  - Designation of waste treatment management agencies
  - Annual update of the plan

- State guidelines will be written to be consistent with the intent of PL 92-500, and published Federal Regulations and Guidelines established pursuant to section 208.

- State guidelines shall be reviewed by the Management Committee and shall be binding on designated areawide planning organizations. The TWQB shall be responsible for monitoring planning organization compliance, and for reporting any lack of compliance through the Management Committee to the Governor.

Texas Water Quality Board

Executive Order Number 18-A from the Office of the Governor specifies the responsibilities and authority of the TWQB to establish requirements, guidelines and reviews. In addition, the TWQB has prepared State guidelines regarding areawide waste treatment management plans. EPA has viewed the role of TWQB as not only the liaison and coordinator between EPA and the designated agencies, but also as a technical advisor to these agencies. The TWQB has the responsibility for insuring consistency in the State for areawide waste treatment management planning.

On February 15, 1977 the TWQB distributed a guidance memorandum to all agencies and entities involved in areawide planning. This memo reconfirmed and emphasized that the State would play a major role in 208 plan implementation.

Local Guidelines

As part of the 208 plan development process, the Planning Advisory Committee approved a specific set of evaluation criteria, with input from the Citizens Advisory Group and Technical Advisory Committee. These criteria were to be considered by the staff and consultants in assessing the capabilities and limitations of existing and potential entities that might perform any or all of the 208 management functions. The adopted criteria and recommended subsets are as follows:

1. Legal Authority

   - Is there legal authority to perform the 208 functions?
   - What is the basis for the authority?
   - Is it clearly defined?
   - Has the authority been exercised?
   - What changes would be required to obtain the necessary authority?

2. Financial Capability

   - What financial resources does the agency have to perform the 208 functions?
   - Will these or other resources be available in the future?
   - Can the agency obtain adequate resources?
   - How would this process take place?

3. Administrative/Technical Capability

   - Does the agency have the structure and management personnel necessary to carry out the 208 functions?
   - Can the agency easily augment its staff to adequately administer the functions?
   - Does the agency have the necessary staff with the appropriate technical skills to carry out the functions?
   - Would it be cost effective for this agency to perform the functions?

4. Public Accountability

   - Does the agency have the process developed for appropriate citizen participation and input with regard to the functions?

5. Political Acceptability

   - Would the performance of this 208 function by the agency be politically acceptable?

   - What would need to be accomplished to make it politically acceptable?

# CHAPTER IV - EVALUATION BY AGENCY AND 208 FUNCTION

## General

This chapter contains evaluations of capabilities and limitations by agency or agency type. As appropriate, the ten functions are discussed. Legal authority, financial, and administrative and technical capabilities are also discussed under each function. Following the discussion of the ten functions, overall assessments of an agency's public accountability and political acceptability are presented.

The thirteen agency or entity types presented in this chapter reflect those agencies that are likely to be assigned major roles in the Greater Houston Area 208 plan implementation. The selection of these agencies was based, in part, on the existing authority regarding legal, financial, technical, administrative, and public/political acceptability as documented in the Current Wastewater Management report dated May, 1977. Other entities would continue to perform their current functions. Agencies such as the Corps of Engineers and Soil and Water Conservation Districts, etc., would provide guidance and control activities even though they may not be a part of the specific 208 areawide management assignments.

- Environmental Protection Agency
- Texas Water Quality Board
- Texas Water Rights Commission
- Texas Water Development Board
- Texas Department of Water Resources
- Texas Department of Health Resources
- Houston-Galveston Area Council
- San Jacinto River Authority
- Gulf Coast Waste Disposal Authority
- Counties
- City of Houston
- General Law Cities
- Home Rule Cities
- Water Districts

## Environmental Protection Agency (EPA)

At the federal level EPA is the agency most directly involved in pollution control and presently has the major responsibility for effectuating Section 208 of PL 92-500. EPA was organized to consolidate the federal government's various approaches to control and improve the environment. Despite the continuing role of other federal agencies in activities with significant environmental impact, EPA retains the responsibility for most governmental action in the realm of pollution control which includes wastewater treatment. Capabilities and limitations regarding functions are presented below.

### Planning

EPA has very significant planning responsibilities pursuant to Public Law 92-500. These responsibilities however, lie basically in the review of plans rather than in actual completion of specific water quality plans. EPA is deeply involved in planning programs under both Section 303 and Section 201 of the Federal Water Pollution Control Act Amendments (PL 92-500). In addition, EPA is, of course, involved in funding, monitoring, and approval of 208 planning projects.

EPA has entered into interagency cooperative agreements with the Department of Housing and Urban Development (HUD), the Department of Transportation (DOT), and the Department of Commerce. These agreements cover a variety of programs including coastal zone management, HUD's 701 program, and DOT's 3-C Transportation Planning and Air Quality Planning. The purpose of these agreements is to encourage coordination among these federal agencies in effectuating federal environmental law, policies, and plans. The broad powers of EPA in this area are such that the agency could conceivably take on localized planning responsibilities. However, in actual practice, this is extremely unlikely, given the political issues involved as well as the lack of interest and resources on the part of the EPA to play this kind of role.

### Permitting and Regulation - Point Sources

EPA is the major point source regulator. It is responsible for administering the Section 402 National Pollutant Discharge Elimination System (NPDES). EPA has generally delegated local administration of the NPDES program to state government. However it retains ultimate authority for program operation through its review and certification plan. This is particularly true in states such as Texas in which the state program has not been officially certified, thus, requiring continued EPA supervision. Program administration by the TWQB has minimized conflicts between EPA and local government. However, in the area of air quality, strong local and state opposition to FPA regulation is evident.

## Permitting and Regulation - Nonpoint Sources

EPA has had limited legal authority in the nonpoint field. The scope of the 402 permit program has been expanded by the case of NRDC versus Train, 396 Federal Supplement 1393 (D.D.C., 1975). Although EPA is appealing this case, they were ordered as a result of this litigation to require NPDES permits for agricultural operations and for separate storm sewers. These regulations for separate storm sewers were promulgated March 18, 1976, (41 Federal 11303), and new regulations have recently been proposed (42 Federal 6846, February 4, 1977). These regulations greatly extend the potential scope of the EPA-NPDES program. However, since nonpoint source controls are generally viewed as being localized in application, it seems unlikely that EPA would wish to become more heavily involved in nonpoint source regulation. In any case, the agency lacks the manpower to implement a very detailed permitting program for nonpoint source control.

## Design, Construction, Operation, and Maintenance

EPA has no authority under federal law to involve itself in the actual construction or operation of waste treatment facility plants. The agency is and can be expected to be heavily involved in funding such facilities and overseeing their construction, as well as regulating the results of their operation through the NPDES permit system.

## Finance

EPA does not have authority to issue long- or short-term bonds or pursue similar financial arrangements. Nonetheless, EPA has had the financial resources necessary to be the primary source of financing for the construction of wastewater treatment facilities. Obviously, EPA resources are contingent upon congressional appropriations and Office of Management and Budget (OMB) reivew and approval.

Through Section 201 construction grants, EPA has provided up to seventy-five percent of the cost to plan, design, and construct treatment facilities. In addition, EPA provides funds to states and designated regional agencies to develop 208 areawide waste treatment management plans. EPA is attempting to reduce local dependency upon federal funds for capital costs of treatment facilities through user charge and industrial cost recovery requirements in P.L. 92-500. In addition, EPA may not subsidize industrial waste treatment through the construction grant program.

## Standard Setting

EPA is now preparing national discharge standards. Through its regional office, EPA has the responsibility to review and approve stream standards as set by the State of Texas. Such a review may lead to requests for changes in State discharge standards. In addition, the agency is charged under Sections 301, 302, 306, 307, and 403 of the Federal Water Pollution Control Act to establish effluent guidelines for all point sources of pollution. EPA's stance on these guidelines has in some cases produced negative local responses and generated litigation. Major sources of controversy are the locally recognized difficulty of multitype standards and EPA reluctance to use discretion and issue variances for hardship cases.

## Enforcement

Under Section 309 of the Federal Water Pollution Control Act Amendments, EPA is empowered to file either criminal or civil actions for NPDES permit violations. EPA receives results of local self-reporting and generally undertakes limited local monitoring to be aware of areas and entities that are not in compliance with applicable standards and permits. Generally EPA defers enforcement actions to state and local jurisdictions for political and practical reasons. However, EPA does have the authority to pursue stiffer fines and criminal sanctions than are available under Texas law.

## Monitoring

EPA has the authority under federal law and regulations to monitor both discharge quality and stream water quality. In actual practice, the local EPA office (Houston) has exercised this power in only a limited way. Sampling and analysis of water quality has been limited to discharges from municipal and industrial waste. EPA receives the point source discharge self-reporting data results from a variety of dischargers. In addition, point discharge effluent quality reports are available from a variety of federal, state, and local agencies.

## Management and Coordination

EPA now lacks the legal authority, manpower, and the desire to actually manage a local or regional 208 program. In addition, the 208 planning process has suffered from a lack of clear direction on what an approved 208 plan shall be as well as from conflicting interpretations of 208 direction from regional and national EPA officials.

Public Accountability

EPA has made significant efforts to allow for localized input through the regional office located in the city of Dallas. However, the Agency's accountability on a day to day basis is dependent upon reliance on local governments and other agencies working with the EPA The agency's major public contact is through public information dissemination and enforcing public participation regulations on its grant recipients. Obviously if the EPA were to become more heavily involved in day to day operation of treatment facilities or local land use controls, significant changes in public input procedures would have to accompany this proposal.

Political Acceptability

EPA's relationship to state and local government is a particularly touchy aspect of the water pollution control program. EPA has sought to utilize state governments as the prime mechanism through which water quality objectives can be achieved. EPA, for example, still plays a role in monitoring in the State of Texas, yet they prefer to keep a low profile. Undoubtedly, the relationship between EPA and the TWQB is a very sensitive one. From a local and State standpoint, it is probably desirable given negative public attitute towards federal intervention that the EPA's direct involvement be minimal. However, dependance on federal funding through the EPA is generally understood and accepted.

EPA, it must be recognized, is often a convenient scapegoat for unpopular political decisions. Nonetheless, an expanded federal role in 208 implementation could be politically unacceptable, particularly in light of EPA's controversial decisions regarding air quality plans proposed for the Houston area.

## Texas Water Quality Board (TWQB)

The TWQB administers the Texas Water Quality Act, the Disposal Well Act, and the industrial waste component of the Solid Waste Disposal Act. In addition, they administer the Water Quality Enhancement Fund along with the Texas Water Development Board . With regard to water quality, the TWQB has wide-ranging responsibilities including planning, monitoring, permitting, stream standard setting, and regulation of private sewage facilities. As the State water quality agency, TWQB is the State agency most directly involved with the EPA regarding the administration of the Federal Water Pollution Control Amendments

of 1972 within the state of Texas. This includes administration of 201 facilities planning and construction grants as well as planning under Sections 208 and 303(e). Presented below are capabilities and limitations including public accountability and political acceptability.

Planning

A number of statutory sections of the Texas Water Code permit the TWQB to plan for water quality. For example, Section 21.062 authorizes the Board to prepare and develop comprehensive plans for the control of water quality in the state. The Board also derives additional planning powers from Section 21.088, which authorizes the Board to contract with local governments, regional planning commissions, and other qualified entities for the purpose of having such plans prepared. The Board is also authorized to make grants or loans to local or regional governments for this purpose. Clear legal authority exists to perform water quality planning, and there is every indication (including recent memoranda from TWQB) that the Board or its successor agency will want to continue its active water quality planning role. This role would include updating of initial 303 basin plans, the waste load allocation for water quality segments, and its current planning efforts for the 208 nondesignated areas. The Board's current involvement in the approval of 201 facilities plans is also likely to continue as part of the overall State wastewater management planning system. It should be noted, however, that the TWQB lacks statutory authority to undertake planning efforts in subject areas other than water quality. This restriction could limit the ability of the TWQB to fully implement the coordination requirements of the 208 regulations since interrelations involving transportation and other areas are desired by EPA of the planning function.

The TWQB has the funds, access to the technical resources, and the authority to perform or contract with local agencies to perform water quality planning.

Point Source - Permitting and Regulation

The TWQB is clearly authorized by Section 21.079 to issue permits and amendments to permits for discharge of waste into or adjacent to water in the state. TWQB is further authorized by this section to obtain detailed information in the form of a permit application from each person intending to discharge into State water courses. It appears that the permitting function for point sources is being exercised adequately by the TWQB. The relationship of permit issuance to waste load allocations needs to be researched in more detail. In addition, by virtue of a 1973 amendment to Section 21.709, "a person may not commence construction of a treatment facility until the Board has issued a permit to authorize the discharge waste from the facility."

Nonpoint Source - Permitting and Regulation

The Board has no legal authority to play a significant role in the nonpoint source regulatory areas. The statutory chapter dealing with the TWQB does not set out any specific authorization in this area. Furthermore, the Board does not believe it has been adequately established that nonpoint sources are major pollution contributors and questions the necessity of nonpoint source control at this time.

Design, Construction, Operation and Maintenance

The TWQB has no legal authority to involve itself directly in any of the key aspects of facility operation, initial design or construction. There has been no effort made by the Board to involve itself in these activities other than the review of treatment plant design as part of the 201 facility planning process and as part of the wastewater discharge permit application process.

Finance

The TWQB has clear authority under Section 21.07-090 to accept and distribute grants and other funds from federal and state sources. The Board however, does not have clear legal authority to raise revenues either through assessments or the incurring of short and long-term indebtedness. To the extent that all of these functions are essential to the financial capacity of a 208 management agency, the TWQB must be said to have insufficient legal authority. The Board is however playing a major role in coordinating the ongoing federal water quality grant program. This function includes distribution of federal 201 funds as well as State Water Quality Enhancement Funds. Administrative operating funds result from state appropriations, and are augmented by EPA administered grant programs.

Standard Setting

Section 21.075 gives the Board clear legal authority to set water quality standards for the waters of the state and to amend these standards periodically. The Board has the sole and exclusive authority within the state to set stream standards, but these standards are subject to EPA review and approval. While the agency utilizes the public hearing process to allow comment on proposed stream standards, conflict has arisen regarding Board proposals to reclassify stream standards which preclude certain uses.

The Board also has exercised its authority to set wastewater discharge standards. This process is directly linked to the EPA-NPDES system, and TWQB's function in this area has been preempted by PL 92-500. Although the TWQB policy calls for reliance upon the assimilative capacity of the stream as a basis for altering discharge

requirements, permits issued have not always been consistent with computed waste load allocations.

Enforcement

The Texas Water Quality Board is authorized by statute to enforce its programs. Subchapter E of the statutory discussion (Sec. 21.251 - 21.257) outlines the various enforcement powers available to the Board including fines and civil actions taken by the Attorney General's office.

The Board has the capacity to enforce its waste discharge permits, but some questions have been raised concerning the enforcement policies of the TWQB. Generally, the TWQB has been somewhat hesitant to pursue non-compliant dischargers in the courts, choosing instead to issue orders specifying schedules for future compliance. Litigation seems to be reserved as a last resort. The Texas Attorney General's office has no power to enforce the State's water quality laws on its own initiative. The Attorney General's office can be asked to initiate such actions by other agencies with subject matter jurisdiction. A controversy has existed for some time concerning the reluctance of the TWQB to refer cases involving major dischargers to the Attorney General for prosecution.

Monitoring

The TWOB is given responsibility under Section 21.257 for "establishing a water quality sampling and monitoring program for the state with which other state agencies engaged in water quality must coordinate their activities." This water quality monitoring program includes both stream water quality and effluent water quality monitoring. The general system currently in effect involves the discharger "self-reporting" effluent quality to the TWQB with selective sampling being undertaken as needed by TWQB. In summary, the TWQB oversees discharger monitoring through spot checks which are focused at periodic verification of the "self-reporting" data. The self-reporting system has been questioned by some segments of the public--primary concern being the validity of the reporting.

Many local public and private entities believe that there are too many agencies obtaining samples for similar or unrelated purposes. These monitoring activities must be coordinated if effective enforcement is to result.

Management and Coordination

It is suggested throughout Chapter 21 (Water Quality Board) that the TWQB is authorized to play a significant management and coordinating

role. The Board is, as noted in Section 21.257, "the principal authority in the state on matters relating to the quality of water." Through its current administration of the Texas Water Quality Act and co-administration of the Water Quality Enhancement Fund, the Board has wide-ranging management responsibilities including the coordination of planning, monitoring, permitting, and standard-setting efforts. In addition, the Board has regulatory powers over private sewer facilities and some limited and indirect involvement in nonpoint source control through its regulation of septic tanks.

Indications are the Board will want to play a major role in the management and coordinating areas in the future. The February 15, 1977, guidance memorandum indicates that the State wants to have a major role in the management and coordination of 208 management plans. One major limitation would be public and political acceptability of the TWQB performing local planning functions. Another is its sole focus on water quality which is in conflict with 208 requirements for a broader environmental perspective. They have stated that they do not want to be involved in the daily operation of treatment facilities. In addition, they will maintain minimum involvement in the design and construction of new facilities.

Public Accountability

As a State agency, TWQB is subjected to the standard citizen review procedures. Although a local office exists in Deer Park, the majority of the TWQB's decisions regarding planning, management, and permit issuance are made by the staff in Austin. Therefore, many actions of the Board, appointed by the Governor, are conceived and culminated in Austin, making local input somewhat difficult. This problem has been addressed by the TWQB staff conducting local public hearings prior to final decision making.

Political Acceptability

Generally the TWQB is respected in its areas of current concentration. However, the expansion of the existing authority of the TWOB into concerns that are localized in nature could be expected to raise public resistance. The degree of opposition would be related to the viability of other options, but the general premise is that an institution more closely involved with the Greater Houston Area would be preferable to implement any expansions in authority relative to water quality.

## Texas Water Rights Commission (TWRC)

This agency is also to be affected by State reorganization. The present primary role of the TWRC is to determine rights to surface waters in the state of Texas. The major role of the TWRC impacting water quality considerations is an oversight authority relative to utility districts. As such, the agency has a central role related to water quality management. The ten functions are assessed below:

### Planning

Although the TWRC has broad planning power under Section 60.64, these powers are related to plans for the development, conservation and management of the state's water resources. Wastewater management is not a responsibility of the Commission in general nor is planning for wastewater management a specific statutory responsibility of the Commission. As such the Commission has insufficient legal authority to become involved in wastewater management planning and has made no effort to exercise this function.

### Permitting and Regulation - Point Sources

The TWRC has no legal authority for involvement in the point source area. Although the Commission administers a permitting process, this process relates to different kinds of water issues (e.g., irrigation and water impoundment). The Commission has no statutory authority to become involved in regulating effluent discharges and there is no indication that the Commission has made any effort to involve itself in this area. The TWRC does review plans and engineering specifications in new "water districts," but there is no regulatory authority as such. The TWRC defers to the TWQB regarding this engineering review.

### Permitting and Regulation - Nonpoint Sources

The Commission has no legal authority per se to involve itself in the regulation of nonpoint sources of pollution. Through its review of "water district" engineering plans relative to drainage and utility facilities, the Commission may have the authority to specify controls regarding nonpoint source pollution. The TWRC has not involved itself in this area to date, and in any event, this potential authority would be applicable only to new water districts seeking TWRC approval regarding the use of bond proceeds. Agency rules regarding the use of bond proceeds restrict the storm water management options to traditional storm sewers, thereby providing a financial and institutional problem for innovative storm water management.

## Design, Construction, Operation and Maintenance

The Commission has no legal authority to involve itself in the design of treatment facilities. They do monitor construction of such facilities to ensure that facilities are constructed as planned. This authority, however, is limited to "water districts" seeking TWRC approval. There appears to be sufficient technical and administrative capability to perform construction monitoring, and it can be assumed that this role will continue but will be further coordinated with other State activities under state agency reorganization.

## Finance

This agency has none of the legal capabilities necessary to carry out the financial responsibilities of a 208 management agency. It has no legal authority to accept and utilize grants, assess waste treatment charges or incur short-and long-term indebtedness. It does have the authority to review financing arrangements proposed by "water districts", and the TWRC must give its approval prior to these governmental entities issuing municipal bonds to finance waste treatment facilities. These activities are expected to continue at current levels even when the three agencies are combined at the State level.

## Standard Setting

The Commission has no legal authority to set water quality standards. It should be noted, however, that the Texas Water Quality Board is required to consult the Commission before the TWQB amends water quality standards for which it has responsibility. Thus, the TWRC has a role in standard setting, although it is clearly not that of an agency likely to play a 208 standard-setting role.

## Enforcement

The Commission has no statutory authority to undertake the enforcement responsibilities of a 208 agency nor is there any indication that the Commission has become involved in any enforcement program relative to wastewater management.

## Monitoring

Although, pursuant to Section 6.064, the Commission does have the power to inspect certain impoundment, diversion, or distribution projects undertaken by special water districts, the Commission is in no way responsible for monitoring water quality and has no programs in this regard.

Management and Coordination

The TWRC has no authority to manage a wastewater treatment program on a regional or local basis. Although the Commission is encouraged to coordinate its activities with other entities including the Texas Water Quality Board, it seems quite clear that the statutes do not foresee or authorize a significant coordinating role for the Commission.

Public Accountability and Political Acceptability

The chief purpose of the Commission is to conserve water as a natural resource through allocation rights in public water and through supervision of special water districts. While the activities of the Commission are relevant to the 208 program, the Commission lacks the statutory authority or the ability to play a more significant role in 208 management. However, the Commission currently lacks public accountability regarding the regulations and processes it has adopted regarding water district formation and design. This Commission has three board members who are appointed by the Governor.

## Texas Water Development Board (TWDB)

The primary role of the TWDB is to ensure that the water supplies of the State are adequate for industrial, municipal, and agricultural uses. A primary responsibility of TWDB is to develop and update the State Water Plan. This activity involves a determination of existing and future water demands, surface water and ground water supplies, and the development of alternative methods of providing supplies to meet projected demands. They are one of the three agencies that were merged into a single water agency under recent State reorganization. The assessment of the ten functions and acceptability are provided below:

Planning

The TWDB has significant resources and mandates to engage in water development planning activities on the State level. The agency is also the primary source of State population and demographic projections. Furthermore, the TWDB is engaged in long-term planning and modeling activities to determine the role of water on growth and development in the state. The purposes addressed in this planning make the majority of the TWDB's efforts of only peripheral importance in waste treatment and water quality planning efforts related to the 208 plan. The merger of the water agencies will make coordination between water supply and water quality plans easier.

Permitting and Regulation - Point Source, Nonpoint Source

The TWDB has no direct authority involving point or nonpoint sources. They do, however, issue permits for the construction of devices for weather modification and for the construction of levees. Consequently, their capability and authority is limited in the wastewater treatment permit and regulation process.

Design, Construction, Operation and Maintenance

The Board has no direct authority regarding design, construction, operation or maintenance of wastewater treatment facilities.

Finance

The Water Quality Fnhancement Fund is jointly administered by the TWQB and the TWDB. The State's Water Development fund recently was unsuccessful in raising its limits of indebtedness. With the consolidation of the TWDB, TWQB and TWRC, a single agency will administer these funds.

Standard Setting

The TWDB does not have the legal authority to set water quality standards. It has, however, an advisory role regarding bays and estuaries.

Enforcement

No wastewater enforcement authority exists related to TWDB activities. They do report ground water contamination to the TWQB indicating that the TWQB should investigate and determine if permits are being violated.

Monitoring

Several water quality monitoring programs are conducted by the TWDB. The most comprehensive programs are salinity studies of bays and estuaries. Special studies are undertaken to monitor ground water quality. Additionally, some 5,000 water wells are to be added to the ground water monitoring system. It is assumed that this monitoring will be continued as the agency's functions are consolidated into a single state agency.

Management and Coordination

The TWDB has no authority to manage a wastewater treatment program. The Board coordinates with TWQB, and its activities will become consolidated under the new single State water agency.

Public Accountability and Political Acceptability

Since the Board, because of consolidation, is not likely to assume any prime responsibilities in the ten functional areas, it is of no relevance to discuss the public accountability or political acceptability of this agency within the 208 framework. However, past controversies surrounding TWDB projects may affect the public attitude toward projects proposed by the new combined agency. One of the recent situations that involved local concern was a result of TWDB's land use and population forecasts.

## Texas Department of Water Resources (TDWR)

The 65th Texas Legislature, in their recent session, passed Senate Bill 1139 which, in effect, merged the Texas Water Quality Board, the Texas Water Rights Commission, and the Texas Water Development Board. Previous functions of each of the merged entities are now the responsibility of the Texas Department of Water Resources. This new Department is composed of the Texas Water Development Board which acts as the legislative branch of the Department, an Executive Director who functions as the executive branch, and the Texas Water Commission which functions in a quasi-judicial capacity. The TDWR was organized into these three district branches to ensure that those setting policies are different from those who rule and enforce.

S.B. 1139 assigns duties, responsibilities, and functions of the TWDB, TWRC, and the TWQB to the new Department. It was the intent of this legislation to reduce the overlapping of jurisdictions, minimize duplication of data gathering, and reduce the costs of administration. The TDWR is the agency given the primary responsibility for implementing the provisions of the constitution and the laws of the State of Texas in relation to water quality. They are responsible for setting policy in both water development and water quality matters. The executive functions of the Department are vested in the Executive Director who is responsible for enforcing and executing the rules, orders, plans, and technical decisions of the Board and Texas Water Commission. This includes statewide "water" planning, water supply

studies and projections, preparation of data and technical programs required to support water resource conservation, and provision of necessary technical inputs to respond to EPA water quality matters.

The former six-member Water Development Board is the interim governing body of the Department and is responsible for legislative functions. Board members will serve their current terms. The Texas Water Commission performs quasi-judicial functions previously performed by the TWQB, the TWRC, and the TWDB. These judicially related functions include the issuance of water rights permits, water quality permits, and municipal and industrial waste orders. The Commission also supervises and regulates the creation of water districts and their operation. It is composed of three full-time salaried members, for staggered six-year terms, who are appointed by the Governor with the advice and consent of the Senate.

Presented below are the capabilities and limitations assessment of the TDWR. This information highlights specific activities as identified in S.B. 1139 which became effective September 1, 1977. Additional insight of the TDWR's range of activities are contained in predecessor organizations: the TWQB, TWRC, and TWDB.

Planning

A number of statutory sections of the Texas Water Code permit the TDWR to plan for water quality. Specific details of planning responsibilities are contained in the description provided of the TWQB. Regarding the TDWR specifically, the Executive Director is responsible for the development, forumulation, and preparation of a comprehensive state water plan for the control of water quality in the state. In addition, the Executive Director is responsible for the development, preparation, and revision of comprehensive water quality management plans for the different areas of the state as designated by the Board. The Department is designated as the state agency to coordinate and cooperate with the U. S. Army Corps of Engineers and the Bureau of Reclamation in the planning for water resource development projects within the state.

Point Source - Permitting and Regulation

The TDWR is authorized to issue permits for discharge of waste into or adjacent to water in the state under Section 21.079 of the Texas Water Code. They are further authorized by this section to obtain detailed information from each entity intending

to discharge into state water courses. Other capabilities regarding point source permitting are contained in the description of the TWQB. Specific statutory authority included in S.B. 1139 authorize the Commission to issue permits and amendments for the discharge of waste into state waters. In addition, the TDWR must issue a permit to authorize any person to commence treatment. No discharges of wastes are authorized unless the Commission has granted specific approval.

Design and Construction

The TDWR has no legal authority to involve itself directly in implementation aspects of initial design, construction, or facility operation other than the required reviews. The Department may inspect the construction of treatment works at any time to assure that the contractor is in compliance with the engineering plans and that the treatment works are being constructed in accordance with sound construction principles. Before beginning construction, each person who prepares to construct or materially alter the efficiency of any sewer system, treatment facility, or disposal system must submit completed plans and specifications to and obtain approval of the plans by the Board.

Finance

The TDWR has authority under Section 21.07-090 to accept and distribute grants and other funds from federal and state sources. There is no authority to raise revenues by that TDWR either through assessments or the incurring of short- or long-range indebtedness. The Board may use the Development Fund for projects including the design, acquisition, lease, construction, reconstruction, development, or enlargement of any existing or proposed local project. They may use the Water Quality Enhancement Fund to provide financial assistance to political subdivisions for the purpose of water quality enhancement. When bonds or other obligations are purchased or a loan agreement is approved by the Attorney General, money from the Water Quality Enhancement Fund shall be delivered to the political subdivision entitled to receive it, and the money shall be used only to pay for construction costs of treatment works. In order to obtain financial assistance under this subchapter of the Texas Water Code, a political subdivision must authorize and issue revenue bonds for the purpose of constructing treatment works. They may sell bonds to the Board in such amounts as may be determined by the governing body of the political subdivision and as approved by the Board. The Department may accept federal funds for waste disposal or

other water quality control activities. The authority and level of potential involvement in the financing of treatment facilities is increased through S.B. 1139.

Standard Setting

Section 21.075 of the Texas Water Code gives the Department clear legal authority to set water quality standards for the waters of the state and to amend them as required. The Department has exclusive authority to set stream standards, but these standards are subject to EPA review and approval. S.B. 1139 requires the Department to establish the level of quality to be maintained and shall control the quality of the waters in the state. Before setting or amending water quality standards, the Board is required to: (1) hold public hearings at which any person may appear and present evidence, under oath, pertinent for consideration by the Board, and (2) consult with the Executive Director to ensure that the proposed standards are not inconsistent with the objectives of the State Water Plan. The TWQB was and the TDWR is expected to exercise this authority and comply with the EPA NPDES system.

Enforcement

The TDWR is authorized by statute to enforce its programs. Subchapter E of Section 21.251 outlines enforcement powers available including the fines and civil actions that may be requested of the Attorney General. The Attorney General's Office has no power to enforce the State's water quality laws on its own initiative. They must be asked to initiate such actions by other agencies with subject matter jurisdiction. The Executive Director may institute court proceedings to compel compliance with provisions of the S.B. 1139 or other decisions of the Department. A person who violates any provision of the Department is subject to a civil penalty of not less than $50 nor more than $1,000 for each day of violation.

Monitoring

The TDWR is given the responsibility under Section 21.257 of the Texas Water Code for establishing a water quality sampling and monitoring program for the state. The monitoring program includes both stream water quality and effluent water quality monitoring. The Board of the TDWR may prescribe reasonable requirements for a person making waste discharges to monitor and report on his waste collection, treatment, and disposal activities. The self-reporting system has been questioned by some segments of the public. Their concern focuses on the validity of the reporting.

Management and Coordination

Throughout Chapter 21 of the Texas Water Code, it is evident that the TDWR is authorized to conduct a significant management and coordination role. Through its current administration of the Texas Water Quality Act and the Water Quality Enhancement Fund, the TDWR has broad management responsibilities including planning, monitoring, permitting, and standard setting. In addition, the TDWR has regulatory powers over private sewer facilities and some limited and indirect involvement in nonpoint source control through its regulation of septic tanks.

With the approval of the Board, the Executive Director may negotiate and execute contracts with individuals or with the federal, state, local, or regional agencies. These joint or cooperative studies or investigations would be of the occurrence, quantity, and quality of surface and groundwater in the state. The Executive Director has the necessary authority to negotiate for the Department, with any agency, for the purpose of carrying out the powers, duties, and responsibilities of the Department.

Public Accountability

The newness of the TDWR precludes any assessment of public accountability. It can be assumed that there would be insignificant changes in basic practices between the TDWR and its predecessor, the TWQB. The standard citizen review and comment procedures regarding public hearings must be complied with by all state agencies. Although there are local offices, the majority of the decisions regarding planning, management, and permitting are made in Austin. This concern is being addressed through the conduct of local public hearings prior to final State actions.

Political Acceptability

There is strong local support for the State and the new TDWR to continue their traditional roles. Opposition does exist to increased State control over local planning, managing, and operating of facilities. The State has indicated their desire to allow a continuance, by local entities, of the day-to-day operation and management of treatment works.

## Texas Department of Health Resources (TDHR)

The Texas Department of Health Resources (TDHR) is the major agency concerned with environmental health. Both the Texas Water Quality Board and the Texas Air Control Board were once subsections of the TDHR when it was known as the Texas State Department of Health. Therefore, this agency has been involved in water quality related endeavors for some time, although its degree of involvement has diminished.

The TDHR is the primary municipal solid waste disposal administering agency in the state. In addition, the TDHR performs a review function of wastewater facilities. It is implementing the provisions of the Safe Drinking Water Act and is involved in shellfish sanitation testing. In short, the agency has a role largely limited to public health issues with the exception of air pollution. Listed below are assessments by the ten functions along with the evaluation of public accountability and political acceptability.

### Planning

Texas law clearly does not provide the Department with the power to carry out the planning function mandated by P.L. 92-500. Although the Department's health responsibilities do affect 208 planning, responsibility for short- and long-term wastewater treatment planning is not allocated to this agency. The Department has in actual practice made no effort to take on this responsibility.

### Permitting and Regulation - Point Source

The TDHR has no statutory authority to issue permits for point source pollutant discharges. TDHR however is tasked under State law to review plans and specifications for wastewater treatment facilities built in the state. The Department is currently sharing the review of construction plans with the Texas Water Quality Board. While this function certainly does not constitute comprehensive point source regulation, it does indicate that the Department has some involvement in the process. It is possible that the technical capability exists to permit and regulate however, there is no indication that activities will be initiated by the TDHR.

### Permitting and Regulation - Nonpoint Sources

The Department has no specific responsibilities for involvement in nonpoint control. The Department does have legal authority

to permit solid waste disposal which it is currently exercising. This involvement is relevant to the 208 process because of the importance of dealing with residual waste.

Design, Construction, Operation, and Maintenance

The department does have responsibility for reviewing municipal treatment facility construction plans and does train and certify plant operators. It has no specific authority to involve itself directly or by contract in the construction or maintenance of treatment facilities.

Finance

The TDHR does not have the authority or capability to undertake the financial responsibilities of a 208 management agency.

Standard Setting

The Department does set standards covering solid waste disposal and municipal treatment plant operator certification and is consulted by TWQB relative to health aspects of waste and water quality standards.

Enforcement

The Department has the ability to enforce its municipal solid waste disposal regulations but does not have broad enforcement powers and thus could not play a major policing role in most 208 plan elements, absent statutory change. When public responses are received by the TDHR, they are normally referred to the TWQB for disposition.

Monitoring

The TDHR is specifically tasked under Texas law to involve itself with monitoring water quality. However, this responsibility area is for the specific purpose of assuring the quality of drinking water and determining bacterial contamination.

Management and Coordination

While the TDHR does have broad authority in preserving the public health, it does not have the legal basis at this time upon which to become a 208 management/coordination entity.

Public Accountability

The Department's public input process tends to be generally ad hoc in nature. Public comment is invited on a number of regulatory and standard-setting aspects of the Department's activities, but there does not appear to be a regularly scheduled forum for public comment on Department activities.

Political Acceptability

Political problems could arise if an effort is made to take the TDHR beyond its current responsibilities related to monitoring for health purposes.

## Houston-Galveston Area Council (HGAC)

The Houston-Galveston Area Council's primary role is planning for the 13-county region under its jurisdiction. As a voluntary membership organization, HGAC gains its support in the region by involving interested public officials in the consideration of problems of a regional nature. The 13 counties over which HGAC has planning responsibility include Harris, Galveston, Chambers, Liberty, Montgomery, Walker, Waller, Austin, Ft. Bend, Wharton, Brazoria, Colorado, and Matagorda. HGAC focuses on areawide problems through comprehensive planning efforts and through the provision of services to constituent governments. HGAC has been designated as the planning entity for the Houston 208 designated area which comprises one fifth of the total H-GAC planning area. The assessment of capabilities and limitations of function and receptivity are presented below.

Planning

HGAC derives its planning authority and responsibilities as well as its functional powers from three sources -- federal law, Texas statutes, and its own bylaws. As a result of all three of these sources, HGAC does have the basic legal authority to perform the 208 required planning function. Furthermore, the Council clearly now has the authority to develop a comprehensive areawide waste treatment management plan. HGAC was specifically designated by the Governor of the State of Texas to undertake this planning function for the Greater Houston Area in response to the requirements of the 208 program. In addition, the Council is authorized through its planning enablement to develop both short-term and long-term plans for facility construction, nonpoint source controls, the designation of future management agencies, etc. The Council is also required, as

are all Councils of Governments, to have significant local input from elected officials and interested citizens. Thus, the planning process which has been developed by HGAC includes extensive mechanisms and efforts to solicit citizen participation. This fact is important to consider in evaluating HGAC's future role in 208 planning once the 208 management plan has been completed and approved by the Governor.

Permitting and Regulation - Point Sources

The HGAC has no authority to issue permits for point source pollutant discharges. However, they as well as others have authority to review and comment prior to permit issuance but are not currently undertaking this function due to lack of funding. The agency by its very nature is a cooperative rather than regulatory agency and thus, while its 208 planning may affect activities such as location, modification, and construction of facilities, authority for regulation by HGAC is clearly lacking.

Permitting and Regulation - Nonpoint Sources

As with point sources, HGAC planning may have an impact on future regulatory programs geared at responding to nonpoint pollution. However, the Agency has no legal authority to directly involve itself in implementing any local control strategies. Local communities and other regulatory agencies, may, on the other hand, look to HGAC for technical assistance in developing nonpoint regulation.

Design, Construction, Operation and Maintenance

The HGAC has no authority whatsoever to directly involve itself in actual design and/or construction of treatment facilities. It also has no role in helping to operate or maintain a wastewater management facility once it is constructed. Reviews of permit applications, 201 plans, Environmental Impact Statements (EIS), and design and treatment plants are performed through the A-95 review process.

Finance

While the Agency does have the authority to accept and utilize grants for waste treatment management purposes such as 208 planning, it lacks funding resources or authority in all other aspects of the comprehensive 208 effort. If the agency was to play an ongoing 208 role it must secure continuing funding.

Standard Setting

The HGAC does not have any legal authority to involve itself beyond review and comment in standard setting. However, the 208

planning effort will recomend to the State standards for stream segments in the planning area.

Enforcement

As is typical of regional councils of government, the HGAC basically has no authority outside of A-95 review in the area of enforcing its own programs. The agency must rely on cooperation rather than on regulation or enforcement. Thus as currently constituted, the HGAC cannot be the responsible enforcement agency for any of the regulatory programs that evolve as a result of the approved 208 plan. It should be noted that the A-95 review is concerned merely with construction grants and does not involve itself with any nonfederally funded projects.

Monitoring

The HGAC has no authority to involve itself in an ongoing monitoring program.

Management and Coordination

HGAC's stated purpose is to bring together various local governments within a regional forum for cooperative action on major issues. The potential for HGAC to perform as a 208 coordinator now and in the future is possible so long as coordination is placed within a cooperative stance along with planning. If a stronger mechanism at the regional level is desired, HGAC is not the best candidate. The HGAC does not have the legal authority at this time to play the kind of role in regional management that it can play in regional coordination. The agency has the indirect power to enforce planning programs since HGAC approval under A-95 will often be critical as a prerequisite to local governments receiving federal and state financing. Yet State law has failed to give the agency any enforcement powers and this greatly hampers the HGAC's management strength. Similarly, the local governments that have voluntarily made HGAC a viable planning organization and a neutral forum for discussion have not relinquished to the organization the power that it would need to truly implement the 208 plan once completed. HGAC does possess a broad environmental vantage point which does recommend it as a coordinator and planner. However, the 13-county geographic area is considerably larger than the 208 designated area and there may be some difficulty getting the full attention of the Executive Committee.

Public Accountability

As demonstrated by its efforts in the 208 program, HGAC provides numerous opportunities for citizens and other local government officials to input into the planning process. Although the activities of the agency are very much in public view, and the HGAC must be considered a highly accountable agency, there is no broad public recognition of its efforts. Regardless of the role the HGAC finally plays in 208 implementation, it seems likely that the organization would score very highly in terms of its mechanisms aimed at increasing its public accountability. The Executive Committee is composed entirely of elected officials and will be responsible for selecting the 208 alternative to be presented to the Governor. This Committee could be said to be directly accountable to the public.

Political Acceptability

If HGAC were to go beyond its present responsibilities and take on a larger role in areas such as enforcement, the political acceptability of such a move certainly could not be guaranteed. However, because of its present responsbilities as a 208 coordinator and plan developer, it would appear that continued reliance on the agency in these areas would be acceptable. It must be noted that HGAC's jurisdiction area is considerably wider than the 208 designated area and thus the priority given 208 after plan adoption may not be high.

San Jacinto River Authority (SJRA)

The comprehensive geographic coverage of the San Jacinto River River Authority places them in an advantageous position with regard to planning, control and use of natural resources, particularly water. Authorities have a major function related to supplying surface water for agricultural, domestic, municipal, and industrial use; these entities are also engaged in flood control and water conservation activities, the preparation of plans for water quality management, and pollution abatement. Additionally, they may act as agents for regional waste disposal. Within their geographic areas, these entities have substantial potential relative to water quality control and planning. Assessments by 208 functional areas are presented below:

Planning

The SJRA has clear authority, within their jurisdiction, to formulate any and all plans deemed essential to the operation of the Authority. This authority includes developing specific plans for

water quality management, including plans for the installation, construction, or acquisition of facilities for the gathering, transporting, or disposal of sewage or industrial waste and effluent. Such authority is being exercised through certain basic ongoing planning work as well as through involvement in the Section 201 Wastewater Treatment Construction Grant Program and more recently the 208 program. More recently, the SJRA, in conjunction with the TWQB, has assumed the responsibility for preparing the 208 program in the non-designated area.

Permitting and Regulation - Point Source

No legal authority for this function appears to exist as it relates to individual point source dischargers. However, the SJRA does have the authority to issue pretreatment permits to industrial dischargers who utilize waste treatment facilities owned by the SJRA.

Permitting and Regulation - Nonpoint Source

The SJRA has insufficient direct legal authority to play a significant role in nonpoint source regulation beyond flood plain management. Certain additional implied authority may stem from State law which authorizes that the SJRA has authority to "encourage through practical and legal means the conservation of soils against destructive erosion." There is no other authorization, implied or otherwise, to justify authority over regulatory activities in the nonpoint area. The SJRA does not appear to exercise any authority over this function, with the possible exception of its involvement in the issuance of septic tank permits, an authority delegated by the State. Further clarification regarding the Authority's future role in septic tank permitting is presented in TWQB Board Order No. 76-1216-4 which was adopted by the TWQB on December 16, 1976.

Design and Construction

The SJRA has clear legal authority to construct treatment plants. SJRA has designed a number of treatment facilities. As with most other agencies in the region, outside engineers are used to develop designs and to manage facility construction.

Operation and Maintenance

The SJRA operates and maintains facilities for the treatment of wastewater. The Authority also has the legal authority to treat industrial waste. As a result of its own efforts and through contractual arrangements, the Authority is operating and maintaining municipal wastewater treatment facilities.

Finance

Clear legal authority exists for the SJRA to undertake the key functions attributable to the financial aspects of a 208 Management Agency. The SJRA has a clear mandate to accept and utilize grants or other funds, from any source, for waste treatment and management purposes. The Authority can raise revenue through assessments and the issuance of general obligation and revenue bonds. Ad valorem taxes may be imposed for the purpose of paying off outstanding obligations of the Authority.

The SJRA is currently exercising the financial powers available to it under State statutes. The Authority has utilized revenue bonds and has collected user charges to help pay off such bonds. The Authority has also taken advantage of Section 201 Construction Grant Funds. Fees from septic tank permits are also collected. The Authority has never utilized its power to impose ad valorem taxes and interviews with Authority representatives suggest that no present plans to impose such tax are anticipated.

Standard Setting

No apparent or implied statutory authorization for standard setting exists in respect to SJRA. There are no indications that the Authority makes any effort to establish such standards although opportunities for it to review standards for commentary purposes do exist and have been used.

Enforcement

The SJRA basically has no express authority to act as an enforcement agent. Indications are that the Authority does play an indirect enforcement role to the extent that noncompliance with the SJRA's septic tank permit process will lead to ultimate enforcement, although not directly by the Authority.

Monitoring

The State statutes do not specifically allocate a monitoring function to the SJRA, although the SJRA has broad, general powers both express and implied, to perform any act necessary or convenient to the exercise of the powers of the Authority. The Authority does, however, play a small role in the monitoring function in that it collects water quality samples and analyzes them both for water supply purposes and for compliance with State water quality criteria. To the extent that monitoring is directly linked to enforcement, the SJRA neither has an allocated legal function in this area nor a record to

suggest that it is performing such functions. They are also involved in self-reporting of the quality of effluent discharge from their plants.

Management and Coordination

The SJRA has clear legal authority to play a significant coordinating function with other key agencies including the Texas Water Quality Board. While the Authority has a technical staff with expertise in water quality planning and management, the staff is limited in size. However, the Authority is prepared to increase the technical staff when the need arises.

At the present, it does not appear that the SJRA plays a dominant management role in the various counties in which it is located.

Public Accountability

State law does not require the SJRA and other River Authorities to develop a citizen participation process as part of their ongoing activities. Their board of six is appointed by the Governor and are not directly accountable to the public. Citizen input does, however, seem possible on a less formalized basis and given its level of responsibilities at this time, River Authorities do seem to provide adequate access for public input. Public input was involved in their activities as operator of wastewater treatment facility manager in Cypress Creek. SJRA preceeded GCWDA in the Cypress Creek area. An increase in responsibility in River Authorities would require an increase in the public accountability of these entities and the provision of a systematic citizen participation program. The development of the 208 plan for the nondesignated area has recently increased SJRA citizen participation efforts through the creation of a Policy Advisory Committee and the designation of a public information officer.

Political Acceptability

River Authorities are in a sensitive political position because they are operating in jurisdiction where governmental authority overlaps. Greater visibility and involvement by the River Authorities in point and nonpoint source programs may lead to political disputes over local government autonomy.

## Gulf Coast Waste Disposal Authority (GCWDA)

GCWDA's primary role in its jurisdictional areas (Harris, Chambers, and Galveston Counties) has been to build industrial waste disposal facilities. These facilities have been built for industry

use through tax-free bonds issued by GCWDA. Municipal waste treatment facilities are also provided. Such municipal facilities are generally operated with an intent toward consolidation of small treatment plants into a more regionally oriented network. Presented below are assessments of capabilities and limitations in the functional and receptivity areas.

Planning

GCWDA has authority to undertake planning activities within Chambers, Galveston, and Harris Counties. The Authority is authorized to prepare a master plan to effectuate maximum abatement and prevention of water pollution, control of waste disposal, and wastewater pollution abatement. GCWDA has adopted, in part, portions of the 8- and 13-county plans as developed by HGAC.

GCWDA has previously participated in a number of planning efforts (e.g., HGAC 13-county planning effort, this 208 project, the San Jacinto River Basin Plan, and the Galveston Bay Study). However, its planning expertise is now limited to facilities planning and does not have the wide scope necessary for 208.

Permitting and Regulating - Point and Nonpoint Sources

Within its geographic boundaries, GCWDA does have specific permitting and regulatory authority relating to solid waste disposal.

This authority does not specifically include all the types of point source permitting and regulation which must be utilized in effectuating the 208 plan.

GCWDA does not have the broad legal authority to use all of the varieties of nonpoint source controls envisioned by PL 92-500. Its authority in the nonpoint area may be limited to solid waste disposal and septic tank regulation. This particular authority is clear and adequate to prevent solid waste disposal from negatively impacting upon water quality. Broader nonpoint control responsibilities have not, however, been allocated to GCWDA.

Design and Construction

GCWDA may design and construct treatment facilities both within and outside its defined geographic area. This area is defined elsewhere in the State statute to mean "the area contained in counties adjacent to the district." This construction function is the prime focus of GCWDA activity. At this time the authority has extensive facility assets. In addition, it provides technical assistance to industry

in facility planning and design development. The GCWDA has authority to and has functioned as technical advisor to industry and municipalities. These services emphasize their design, operational, and problem-solving skills. Consulting engineers are used to develop detailed designs, plans, and specifications for construction purposes. Their capabilities are strong and acceptable to their current customers.

Operation and Maintenance

GCWDA has clear operation and maintenance authority including the ability to assess user charges. Unlike design and construction, this function is only operable within the district; (i.e., the three-county area.)

While its primary experience has been with industrial treatment, GCWDA also treats municipal wastewater and, more recently, has assisted individual areas in moving toward regionalization of treatment facilities. Serious complaints about operation costs were registered with GCWDA over their services in the Cypress Creek area. In Cypress Creek, GCWDA instituted a regional system with the encouragement of the TWQB. It replaced SJRA who also experienced implementation problems. The resultant costs, higher at the onset, were resisted locally. At the present time, GCWDA is involved, at the request of various areas, in the development of eight (8) regional treatment facilities. They are also under contract to operate several treatment facilities in the Cypress Creek area.

Finance

GCWDA has extensive fiscal powers. Among its authorized powers are the ability to impose property taxes (with voter approval) and user charges, issue bonds secured by revenue and ad valorem taxes, and receive funds from the State and federal governments.* Furthermore, GCWDA may establish special water pollution control districts to effectuate its programs. GCWDA has had no apparent financial difficulties in implementing its plans. The degree to which an expanded role for the agency could be similarly effectuated cannot be determined until more detailed management and engineering options are developed. The method of industrial financing has aroused some controversy; however, it has been upheld by the courts and all involved State and federal agencies. This may impact their ability as a regional finance source should a significant change in the financing benefits to industry occur.

*GCWDA sought voter approval in 1970 for its three-county area for a property tax; however, it was disapproved by the voters.

Standard Setting

GCWDA has standard-setting power. This power is subject to Texas Water Quality Board review and amendment. However, GCWDA has not set any standards of its own. At present it does comment upon permits granted within its jurisdiction.

Enforcement

Enforcement power is granted to GCWDA relating to State water quality standards. This power includes injunctive relief and criminal sanctions. Penalties of up to $1000/day of violation are possible for violations of GCWDA rules, permits or orders. This is in addition to injunctive relief in County District Court.

Monitoring

GCWDA may make inspections and investigations on public and private property to evaluate conditions relating to water quality and waste disposal. The results of its investigations are required by statute to be transmitted to TWQB. The actual monitoring efforts of GCWDA are limited to self-monitoring.

Management and Coordination

GCWDA does not presently exercise nor does it appear that it can legally exercise as a single responsible agency the broad type of overall management and coordinating powers necessary to effectuate a 208 plan for the entire designated area.

Public Accountability

The GCWDA is governed by a nine-member board, three of whom are appointed by the Governor, three by counties, and three by a caucus of the mayors of the cities. Generally, the agency is located away from the greatest population concentrations in the Greater Houston Area, and the agency maintains a rather "low profile" when compared to other agencies in the area. Due to GCWDA's emphasis upon industrial treatment, it has not been required in very many instances to work with the public at large. GCWDA, as well as other agencies, have had difficulty in developing a citizen participation process for their planning efforts. Some criticism from particular interest groups has been directed at the Authority for their reactions to citizen views in cost of operations and planning. The work of the agency has resulted in valuable citizen inputs which were used in the decision-making process in the Cypress Creek situation.

## Political Acceptability

GCWDA has excellent support from the industrial sector, but its political acceptability has varied from excellent to poor as the agency becomes involved in municipal activities. The agency has been involved in a number of well-publicized local controversies, and GCWDA appears, at this time, to have vocal supporters and detractors within local government.

## Counties

Counties have limited responsibilities relative to water quality. The major areas of responsibility include subdivision plat approval authority, drainage and flood plain controls, septic tank control powers, and landfill operation powers. Should the counties be granted ordinance-making power over unincorporated areas, land use controls and other tools may be available to control point and nonpoint source pollution. However, this power does not presently exist. Discussed below are the assessments by functions and receptivity of the counties in the 208 process.

## Planning

Authorizations for planning by counties are limited to planning activities related to subdivision approval, county road construction and flood plain management. Broader land use planning and environmental planning concerns are not within the realm of responsibility of county government. As a result, while Texas counties have, to varying degrees, become involved in the specific areas of planning mentioned above, wastewater management planning has not been a sphere of concern for county government.

## Permitting and Regulation - Point Sources

County governments have no direct statutory control over point sources of pollution and do not issue permits for point source pollutant discharges. While the counties have no direct permitting role, they are authorized to work with the Texas Water Quality Board in enforcing Board regulations involving private sewage facilities, including septic tanks.

## Permitting and Regulation - Nonpoint Sources

Counties have limited responsibility in the area of potential nonpoint source controls, in part due to the lack of general zoning

powers allocated to county government. Counties do have certain mechanisms through which some involvement in nonpoint control would be possible, including review of subdivision plans in unincorporated areas. Most importantly, county government can involve itself in nonpoint source pollution when nonpoint source control is related to flood control. As a result of a number of legislative acts, county authority relative to the flood plain has been expanded. According to a 1972 Attorney General's opinion, counties have the authority to operate and maintain, or contract for same, for areawide wastewater collection and treatment facilities. Some counties are utilizing this expanded jursidiction to review subdivision plats and building permits with respect to slab elevation and other criteria related to identified flood hazards. However, counties have no authority to become involved in nonpoint source regulation if that regulation is independent from flood plain management regulations.

Design, Construction, Operation, and Maintenance

County government is authorized to undertake the construction, operation, and maintenance of area or regional wastewater collection and treatment systems. Out of the six counties in the Greater Houston 208 Area, none have to this point exercised this power. Implementation action is required to be initiated by the County Commissioner's Court. This body must request the formation of a special water district and adhere to State laws regarding their formation.

Finance

The financing of sewer works through the incurring of debt is authorized. Counties can also establish user fees and assessments, and counties may be the recipient of grant funding, although they are not eligible to receive 208-related grants.

In short, counties would appear to have most of the authority and capability necessary to carry out 208 financial responsibility.

Standard Setting

County government has insufficient legal authority to involve itself in setting standards for water quality. Although the counties have, as indicated below, responsibilities for enforcing some standards set by agencies such as the Texas Water Quality Board and standards of its own in selected areas such as flood plains, its past functions do not serve as any precedent for future involvement of counties in standard setting. They may, however, comment on standards set by other state agencies.

Enforcement

Counties do serve as the local enforcement agency on occasion for the TWQB, particularly in matters relating to private sewage facilities. Counties also have the power to work with the District Attorney's Office to enforce provisions of the Texas Water Quality Act.

Monitoring

Counties have authority to monitor water quality and discharge quality and are, in some cases, exercising this authority.

Management and Coordination

Counties are legally and geographically limited in their overall management powers. These limitations are reflected in the lack of general ordinance-making powers and restrictions on financial capabilities. In addition, county controls related to wastewater management tend to be limited towards efforts related to flood plain management and control. Although counties are involved in a number of activities that are related to 208 management, it appears that changes in state legislation would be required before counties could hope to play a major coordinating role in 208 implementation.

Public Accountability

County government does not at this time have any formal mechanisms for gaining public input in matters related to county wastewater management policies. On the other hand, county government has not, to this point, played the kind of significant role that would require the formalization of a citizen input mechanism. The normal political process does offer a means of citizen input through voting and regular public meetings. The commissioners court meetings are well covered by both the television and newspaper media.

Political Acceptability

The county governments have generally not played aggressive roles as compared to local governments and water districts regarding water quality problems. This reflects a basic attitude about the separation of county and local government authority support of the separation of responsibilities. A more active role relating to nonstructural nonpoint pollution programs or monitoring and enforcement could bring about political opposition from cities whose powers would be limited by such actions. On the other hand, a county-wide nonpoint source control program could be complementary to the drainage and flood control functions currently being implemented by counties.

## City of Houston

### (Including areas of extra territorial jurisdiction - ETJ)

Houston* is a home rule charter city and, as such, has available to it those functions specifically identified in the generic discussion of home rule cities as provided in the report, Current Wastewater Management. While that general discussion can be referred to for a general survey of the functions available to cities such as Houston, the large area within the jurisdiction of the City of Houston requires that a brief review of the City's activities in wastewater management be undertaken.

The City of Houston does not use zoning ordinances to control growth and land uses. Houston, and all other home rule cities, is authorized by State statutes to enact zoning ordinances through City Council actions.

Those departments directly involved in wastewater management activities and those related to the 208 effort are public works, city planning, health, legal, and policy planning. These departments will be discussed under the various functional areas. Listed below is the assessment by function and receptivity for the City of Houston.

### Planning

As a home rule charter city, the City of Houston has considerable planning powers under Texas law. These powers have been exercised in a number of areas. The City has been active in using population growth and land use change forecasts as a means for developing capital expenditure programs relating to wastewater facilities. The City also does planning in this regard for its area of extra territorial jurisdiction or ETJ. The City, while sharing some responsibility for this area with Harris County, has involved itself in planning for future wastewater management in its sizable ETJ. The City has not developed specific plans designed to control growth or implement environmentally related objectives. Planning related to the provision of water and sewer facilities, stormwater drainage, and street systems closely resembles planning designed to "control" or direct urban growth and could also be considered to be environmentally related. Nevertheless, while the

*The cities of Baytown and Pasadena are also home rule charter cities. They have not been separately discussed since their boundaries are limited. However, they do provide wastewater treatment services within their areas and are moving to improve their services in light of recent plans.

City has taken on major planning jobs (such as transportation planning for Harris County), the number of different departments increases the difficulty of integrating all planning efforts and their general effectiveness.

Permitting and Regulation - Point Sources

As is typical of other home rule cities, Houston is not precluded from the authority to issue permits for point source pollutant discharge. The City is consulted from time to time on point source matters by the TWQB. General law cities may operate only as provided for in the statutes; home rule cities may generally exercise any powers not specifically prohibited by law. There does not appear to be any statute prohibiting the City from issuing permits for point source discharge. The City currently exercises like powers in prohibiting certain discharges into storm water systems and is currently enforcing an industrial waste ordinance as it pertains to discharge within the municipal system. This comment presumes that a point source is a readily identifiable source of pollutant discharge.

Permitting and Regulation - Nonpoint Sources

The City of Houston does not have specific power nor is it required to be involved in nonpoint regulation. However, the City, as is typical of home rule charter municipalities, does have numerous vehicles for local control over nonpoint sources, both within the city limits and within the ETJ. For example, the City is currently exercising authority over septic tanks and regulations relative to the Federal Flood Insurance Program. Subdivision, building, and related city ordinances are legal means that could be used by the City of Houston to respond to nonpoint pollution problems. Thus, at least by implication, the City of Houston could play a significant role in nonpoint source regulation. It should be noted, however, that while the City of Houston is reviewing subdivision plats, no ordinance requiring subdivision plat approval is in existance at this time. Such an ordinance would have to be passed prior to the City undertaking a major nonpoint source control role. This absence of an ordinance relative to subdivisions is further compounded by terrain relief factors which limits a "natural drainage" system and other drainage solutions that retain water on site, thereby minimizing flood and water quality impacts. The City is reluctant to assume responsibility for such facilities due to high maintenance costs and probable health hazards generated by sedimentation and standing water.

Design Construction O & M

The City of Houston not only has the legal authority to involve itself with treatment facilities but is in fact actively involved either directly or by contract in the design and operation of such facilities. The City, in addition, is working with the Gulf Coast Waste Disposal Authority in planning and providing facility operations within portions of the ETJ. Specific activity regarding regional facilities are occurring in the unincorporated portions of northern Harris County. During the 1960's, growth outstripped facility development producing major pollution problems. Efforts to alleviate these deficiencies are presently underway, and adequate treatment is projected for the incorporated area by 1982.

Finance

The City of Houston has available all the financial mechanisms necessary to play a significant role in 208 implementation. These powers include the authority to assess various taxes and user charges, issue bonds necessary for a 208 program, impose user charges and industrial cost recovery to accept grants for wastewater management construction projects. While increased sewer rates were unpopular, the City, in the face of the necessity to expand its capacity, was able to secure City Council approval. Similarly, user charges and industrial cost recovery charges to comply with EPA requirements have been instituted. The City is not required to source public approval for water and sewer rate increases or for the sale of revenue bonds. The actions require approval by City Council. Debt service and maintenance/operations are supported by respective revenues.

Standard Setting

The City of Houston does not have the authority under State statutes or under its own charter to set water quality standards. The City is, however, involved with the TWQB in recommending to the Board appropriate water quality standards for the area within the Houston jurisdiction. The City may adopt ordinances which seek more stringent water quality standards within their area of jurisdiction.

Enforcement

The City is capable of and is actively enforcing the wastewater management programs in which it is currently involved. Enforcement action can be taken either by the City's own legal department or, in certain instances, by the State. The City Health Department is mandated to enforce water quality standards within Houston's incorporated areas and portions of the ETJ.

Monitoring

The City of Houston is one of a number of local governments that shares monitoring responsibilities with county and state agencies. The City of Houston works with TWQB to assure through monitoring that water quality standards are maintained. The City of Houston maintains a major laboratory facility and technical staff and is becoming more involved in water quality monitoring and research.

Management and Coordination

The City of Houston is sophisticated in exercising the powers available to it. Nonetheless, it is limited because of its jurisdictional boundaries. Because of the availability of an ETJ area, the boundaries of Houston are quite extensive. Yet they are still not broad enough to suggest an overall management or coordination role for the City. Nonetheless, the City is a major 208 actor.

Public Accountability

Although the meetings of the City Council are covered by the news media, many of the day-to-day programs of the City are conducted well out of the public's view. Cities, counties, and water districts all have elected officials who are obligated to afford the means of routine access by the electorate. Although, in complex government, not every decision may be rendered by the Mayor or Council. In addition, discretion by department heads that serve at the pleasure of elected officials must be exercised regarding policies and priorities. For example, the sewer moratorium is implemented through the building permit process, and no formal ordinance has been passed regarding this program. Therefore, while the Mayor and the Council must ultimately go to the city electorate, much of the day-to-day decision making is removed from the local public.

Political Acceptability

For the most part, it is difficult to predict how well the City of Houston would be received in attempting to more fully exercise the wastewater management functions discussed above. While the City would not seem to face any political opposition in its continued design and construction of facility plants within its own jurisdiction or in performing a monitoring function on a cooperative basis with other agencies, expanded enforcement or coordination efforts outside City jurisdiction may be looked upon disfavorably. An effort by the City to play a larger regional role in responding to the mandates of the 208 program may run into political opposition, especially

from other cities and special districts. The City is and will increase in its physical boundaries, thus coming into control over almost the entire 208 designated area. This will be done through annexation and stronger controls imposed on the ETJ.

## General Law Cities

General law cities are so named because they operate and draw their powers from the general laws of the State as specified in the Texas Constitution and the Texas State Civil Statutes. The major differences between general law and home rule cities are the ad valorem tax ceiling, power to make physical improvements to streams, and limits of annexation power. However, the practical interpretation of home rule power has not differed much from that applied to general law cities. Presented below are the assessments by functions of the general law cities.

### Planning

General law cities do have clear legal authority in the area of planning. Such planning may be broadly exercised in any area within the city and for any reasonable planning purpose. Many cities in the designated 208 planning area have used this power to prepare comprehensive land use master plans. Cities have interpreted their planning powers to authorize efforts in the water quality planning field such as 201 facilities planning and evaluations of future treatment facility needs.

### Permitting and Regulations - Point Source

General law cities do not have the power to issue discharge permits, although they are asked to make recommendations to the Texas Water Quality Board from time to time on the question of permit issuance.

### Permitting and Regulations - Nonpoint Source

Although general law cities do not have express authority to involve themselves in nonpoint source pollution control, cities have the kind of broad land use and regulatory power necessary to take on many of the responsibilities in the nonpoint field. In other words, it is possible to imply from the City's authority in implementing subdivision, building, housing, and zoning controls the necessary power to carry out the nonpoint control function.

Design, Construction, Operation and Maintenance

General law cities have the express legal authority to involve themselves directly in almost every aspect of treatment facilities, ranging from design to operation and maintenance.

Finance

General law cities have the authority and capability to carry out all of the primary financial functions of a 208 agency. General law cities may accept and utilize grants or other funds from any source for waste treatment management purposes. They may, pursuant to Texas law, raise revenues, including the assessment of waste treatment charges. In addition, such cities may incur short- and long-term indebtedness.

Standard Setting

While general law cities do not have the responsibility for establishing water quality standards, they do play a part in the establishment of these standards as they apply to local needs. Cities are often asked to make recommendations on standard setting to the TWQB.

Enforcement

General law cities have broad enforcement powers under Texas law and could if called upon, enforce a variety of regulatory programs with which they are involved. Indications are that a general law city could also refuse wastes from any subdivision thereof which refused to comply with provisions of an approved plan.

Monitoring

General law cities share the responsibility for monitoring both stream water quality and effluent discharges with a number of agencies at the State and county level. Cities are authorized to involve themselves in monitoring in order to assure the general health and welfare of the community.

Management and Coordination

Although the powers of general law cities are fairly broad as indicated above, the jurisdictional control that such a city may exert is limited. Although extra territorial jursidiction allows cities the potential to control water quality outside

their boundaries, this power is still generally localized in nature and not the kind of broad geographic scope necessary to assume significant management and coordinating roles in a regional 208 program.

Public Accountability

General law cities generally must by statute provide adequate access to citizen comments and complaints and thus, given the public hearing function which is so much a part of the decision making process in general law cities, it appears that such entities are on strong ground in the area of public accountability.

Political Acceptability

If general law cities attempt to use some of their land use and related powers to more closely manage or control growth in the name of water quality management, a negative political result may evolve. However, less direct measures, such as erosion control which can improve water quality through nonpoint control would probably be acceptable. It is obvious that if an effort is made to expand the jurisdictional powers of general law cities beyond their normal boundaries that numerous political protests may arise. Simply stated the geographic limits of such entities reduce their ability to take the regional view necessary for effective 208 planning management or implementation.

## Home Rule Cities

The legal analysis of general law cities provided elsewhere should be referred to in evaluating the ability of home rule cities to carry out the ten major 208 functions. Home rule cities, for the most part, derive their powers from exactly the same sources as general law cities--the Texas Constitution and Articles 961 through 1269 of the Texas State Civil Statutes. A major distinction between "General Law" and "Home Rule" cities is that general law cities may operate only as provided for within the Statutes, while home rule cities may generally exercise any power not specifically prohibited by law. Thus, the discussion of these two types of municipal government are almost identical as related to the carrying out of 208 management functions. It should be noted, however, that home rule charters do have a number of additional powers beyond those alloted to general law cities. Most significantly, home rule cities have the ability for greater self-governance through the adoption of a city charter with approval of the voting residents. For the purposes of 208 wastewater management, the key additional powers available to home rule cities are as follows:

1. Home rule cities have greater flexibility than general law cities in the area of property taxation (i.e., an increase in tax ceiling is the key to this additional flexibility).

2. Home rule cities can widen and otherwise improve any streams or rivers which run through their jurisdictions. General law cities cannot exercise this function which may have some relevance to 208 implementation.

3. Home rule cities have the power to annex adjacent land within one mile of city boundaries without the consent of the annexed inhabitants. By contrast, general law cities cannot annex without approval by majority vote of the affected residents.

Comments relating to the public accountability and political acceptability of general law cities would seem to apply equally to home rule cities. While home rule cities by their very nature tend to have additional powers, an expanded role by such cities in 208 functions would likely run into the same kind of political backlash.

## Local Water Districts

Local water districts are governmental units which have the power to tax, incur debt and collect revenue related to water supply and treatment. There are three types of water districts in addition to districts created by special legislative acts. They are Municipal Utility Districts (MUD's), Fresh Water Supply District (FWSD's) and Water Control and Improvement Districts (WCID's).

Water districts are both functionally and territorially diverse. They traditionally have been established to serve small subdivisions for developers with 200- to 300-acre tracts that have been platted for residential or commercial purposes. Developers usually keep the land area of these water districts small to retain management control until the property approaches full development. The relatively small areas served by such water districts usually result in the proliferation of small treatment facilities in the fringe development areas. Although these facilities may be well designed and capable of adequate treatment, they will cause pollution problems if not properly operated and maintained. Given the size of such facilities, it is impossible to achieve economies of scale for advanced treatment.

The magnitude of the problem is dramatically illustrated by the number of districts in the designated area. There are approximately 310 water districts in the H-GAC 208 designated area. Within this

group, there are approximately 168 MUDs, 11 FWSDs, 36 WCIDs, and 95 special law districts. The districts vary in size from about 100 acres to over 1,200 acres.

Although water districts are large in number, they are restricted to specific service boundaries except where they are requested by contract to serve additional areas. This restricts their capability to initiate any form of regional functional wastewater management activities. They represent one of the areas that requires improved coordination, integration, and consistent management direction in the 208 management plan. These districts will, in general, be required to react to the direction and plan resulting from the 208 process. On a local basis, these water districts through their elected boards represent a publically responsive entity to receive wastewater for treatment purposes. Their restricted territory scope and limited visibility of their contribution and ultimate impact on regional water quality will require the plan to focus on realistic solutions to solve treatment problems while allowing for a continued form of local facility control.

There are two major powers of these water districts that are common to all. They first have the ability to obtain the capital required for facilities construction such as drainage systems, sewage treatment systems, and water supply systems. The facilities are generally allowed by all of the district types. The actual substance of these systems are subject to the review of a municipality if they are within their ETJ; the Harris County Flood Control District (for districts in Harris County), from a drainage standpoint; and the Texas Water Rights Commission. The second power common to these water districts is the ability to raise revenues through user charges, industrial cost recovery, and ad valorem taxes. This financing capability provides for their continuance as a local entity. More detailed information regarding the authority and performance of water districts is provided in the Current Wastewater Management document.

User Charge/Industrial Cost Recovery (UC/ICR) is a condition of acceptance of construction grants, Section 201 funds from the EPA. User charges are to assure that each recipient of sewage treatment services will pay his proportionate share of the costs of operations and maintenance. This user charge is proportional to requirements for treatment of wastewater for both residential, commerical, and industrial users. The industrial cost recovery charges in Section 204 of P.L. 92-500 require that for 201 funded projects the management agency collect from industrial users that portion of the grant amount allocable to treatment of wastes from such users. The penalties for noncompliance could be withholding of grant funds, restriction on eligibility for future grants, and the seeking of judicial remedy to recover funds already granted and expended.

# CHAPTER V - SUMMARY EVALUATIONS AND FINDINGS

## Introduction

This chapter contains summary assessments of potential management agencies by each of the ten 208 functions and the five assessment criteria adopted by the Areawide Planning Advisory Committee for evaluation of existing and potential management agencies and entities.

Chapter IV of this report contains more detailed agency-by-agency functional assessment, specific capabilities, authorities, and limitations of all the major management agencies. The functions used in these assessments are drawn from the 208 regulations and guidelines. The five assessment criteria as approved by the local advisory committees are: Legal Authority, Financial Capability, Technical Competence, Public Accountability, and Political Acceptability.

## Planning

The 208 regulations require that the planning role be assumed by an agency or agencies that has not only wastewater treatment planning expertise but also a comprehensive perspective. This comprehensive perspective is to be both geographic and technical. The agency's planning jurisdiction must be able to encompass the entire designated 208 area, and it must perform wastewater treatment planning as an integral part of an overall environmental planning process. This would include environmental planning considerations regarding air quality, transportation, housing, etc.

### Legal Authority

This analysis has shown that numerous agencies have planning authority. However, in most cases, that authority is limited, either geographically or technically.

All political subdivisions have general planning authority granted to them which is either immediately or indirectly related to water quality. However, the charter area for planning is often geographically circumscribed. This problem affects not only the local water districts but also the City of Houston (even with the ETJ), the Counties, and the River Authorities.

At the regional level, H-GAC and GCWDA have broad geographic mandates. GCWDA's charter area encompasses Chambers, Galveston, and Harris Counties, and H-GAC, as evidenced by its designation to develop the 208 plan, fulfills the geographic requirements. Both the statutory enablement and present operations of GCWDA appear to limit its planning primarily to facility planning and a ten-year plan. Thus, this agency presently does not have the broad environmental scope for compliance with the 208 planning concept. H-GAC does possess geographic comprehensiveness but does not have a clear legal mandate to undertake the planning functions beyond the 208 project. At the State level, the new TDWR and Department of Health Resources both possess the requisite geographic authority. However, these agencies are focused upon particular water issues and not the broad environmental concerns envisioned by 208. The City of Houston, however, has planning and technical activities related to the broad planning concept envisioned by EPA as the 208 planning requirement.

## Financial Capability

Providing adequate funding for the planning which 208 expects to be an ongoing regional activity will be difficult. Agencies such as H-GAC are project oriented and thus do not have the resources for ongoing programs. This is especially true of complex environmental programs for an area as large as the designated area. Furthermore, the geographic limits of agency responsibility (as, for example, with the cities and river basin authorities) present additional financial problems. Money cannot be expended for studies outside the agency's immediate jurisdiction. This restriction forces consideration of regional or State support. Yet it is limited by previous policy and dollar availability to a project system. Continuing planning programs have sometimes been funded by federal agencies such as HUD; however, EPA has not made clear its intentions in this regard.

## Technical Competence

Given the restrictions of legal mandate and funding, it is not surprising that, at present, candidate agencies have staffs that are focused on particular projects and possess specialized technical skills. These agencies are dominated by specialists who are not well equipped for an ongoing comprehensive planning role of an environmental thrust. This is evident not only in staffing but also in the relationship of planning to other agency operations. Planning is often a fragmented function without any real strength. No agency possesses a planning capability as a completely integrated part of an overall ongoing environmental department. Furthermore, if one measures technical competence on the basis of implementation, the region's record is not a good one.

This discussion, however, does not in any way negate the present efforts of H-GAC in the 208 project. Yet, this project is fixed in scope and time and, while performing well, is not a guaranteed ongoing environmental program.

### Public Accountability

The federal requirements for public participation in the planning process are exceptionally clear. The strength of this mandate is evident in the extent of the 208 public participation effort which is but one of the many citizen efforts in the region. Other state requirements encourage public participation. While there have been some successes and failures in this area and some claims that citizen inputs are ignored in planning, continued efforts are anticipated to increase citizen awareness of planning and citizen input into the decision-making process.

### Political Acceptability

Planning is an activity that many persons in the region would say is a necessary evil. Federal program availability is contingent upon planning which is one positive force. However, conditions in the Southwest and reluctance to intervene in the land development process often affects the attitude toward areawide planning. Generally, the more localized the planning effort, the more acceptable it is. Thus, "outside" planning agency intervention is viewed with suspicion. Yet, those agencies dealing with well-defined specific planning problems with good staffs and major public accountability efforts have been acceptable at the local level.

## Operation and Maintenance of Facilities

### Legal Authority and Financial Capability

While not a complex function from a legal or financial standpoint, for smaller treatment facilities, the individual facility needs regarding operation and maintenance of treatment facilities has, both at present and in the past, been a primary concern in limiting the development of a high-quality regionalized wastewater treatment system. All of those entities which are legally authorized to design and construct facilities are similarly given the authority to operate and maintain these facilities and finance their efforts. There is a general belief that small plants are generally not as effective and efficiently operated as are larger facilities. This view considers output water quality, staffing, and available technical resources. The reverse, however, is not completely true

either. Very large regional treatment plants are, in many situations, exposed to loads which exceed their design capacity. A lack of public understanding of the necessity of permit compliance and its involved costs inhibits development of more efficient and larger treatment facilities. In addition, past experience has tended to allow development of multiple small versus larger facilities. Available funding for improvements are made on the basis of needs and, in some instances, noncompliance reports are being exaggerated to receive higher priorities to obtain 201 grants.

Technical Competence

While some operations problems have occurred with particular treatment plants, this is not primarily a problem of staff technical competence. The State licensing procedures for operators appear sufficient. What is required now and for the future are assurances of sufficient manpower to do the job. This tends to be a financial problem rather than a technical one as salaries for this type of work have been relatively low.

Public Accountability

A major problem relating to operations is the wide variation in rate structures in the region. These differences generally reflect differences in actual costs; yet they have produced public confusion and opposition to particular programs. The board members of water districts or of services provided by municipalities are elected and are, therefore, accountable to the public. Few citizens, however, are aware of treatment plant operation and maintenance and experience difficulty in having complaints handled.

Political Acceptability

This factor does not appear to be critical for this function. However, there are some indications that local operators are preferred to regional operators because of the immediacy of response to user complaints and requests. Yet, it can be argued that, as long as larger agencies provide more efficient service at comparable rates and improve their public participation and visibility, local political acceptance will likewise be improved.

## Design and Construction of Facilities

### Legal Authority

Neither the federal government nor the State of Texas can at this point be seen as potential designers and constructors of wastewater treatment facilities. This is clear both on the basis of precedent and on review of the legal authority which presently resides within the various federal and state agencies that have been analyzed. The State, however, is involved, as will be seen in other discussions, in the financing, permitting, and design review functions. Both by tradition and by law, the design and construction of wastewater treatment facilities is a regional or local function. The Gulf Coast Waste Disposal Authority, the City of Houston, San Jacinto River Basin Authority, as well as other cities and the various water districts, are all authorized to design and construct treatment facilities. While this broad authorization has allowed the development of a variety of wastewater treatment facilities within the region to meet particular needs, it has also created the problem of lack of coordination (outside of municipalities/incorporated areas) in the development of these facilities in lieu of the development of consolidated treatment plants. If one of the results of the 208 study is a determination that consolidation of facilities in their development, operation, and maintenance is required, a major decision point will be reached from a management standpoint. With numerous agencies presently legally authorized to provide these services, a wide spectrum of potential entities to design and construct facilities exists. Determining which of these entities is best equipped to handle design and construction is partially a technical issue based on their previous experience but also one that is related to their ability to finance and, most likely, effectively and economically operate and maintain such consolidated facilities. The geographic authority issue also becomes critical in such an analysis. Those agencies which have authority over a larger geographic area than the individual water districts or small cities are more likely candidates for this more comprehensive design and construction function. If this approach is adopted, it does not negate the continued operation and maintenance of facilities by more localized but qualified operators. However, it does suggest that, in the future, if facilities are to be consolidated for improved efficiency and quality of treatment, they will be handled under a more centralized authority instead of by a particular entity which happens to be geographically adjacent to a particular pollution problem or happens to be located within a growth and development area.

Financial Capability

All those agencies authorized to perform this function have the capacity to secure adequate funding for this function. The financing of design and construction is merely a cost of doing business that is absorbed in operating and developing budgets. In general, EPA provides seventy-five (75) percent of the capital cost of new facilities to meet documented needs. Excess capacity costs and operating expenses are allocated specifically to those who requested the future availability of capacity. This restriction inhibits larger or regional systems in high growth areas where land uses are the developer's option. There are four alternatives to providing front-end financing for more regionalized system development.

- Allocation of excess capacity cost to future users, based on the capacity received
- Recover excess capacity costs from future users of the system through property taxes
- Service accumulated debt for excess capacity cost through a connection fee
- Use serial bonds with the payment schedule arranged to produce rising annual debt service.

Technical Competence

Either through staff or by contract, the technical requirements for facility design and construction have been and are expected to be met. This criteria does not present a problem so long as adequate staff selection and consultant decisions are made.

Public Accountability

Design, development, and location decisions of major facilities face numerous public hurdles. The most critical points for public review are during the project hearings stage and as part of the voting process regarding bond issue approval. The legal requirements dealing with this function are clear and sufficient.

Political Acceptability

Technical design and construction decisions rarely meet with public opposition beyond that associated with user cost impacts and bond issues. With the growth of environmental awareness, public reviews of options, and especially noncapital intensive options, are

growing, but this does not appear to be a significant factor at this time for the Greater Houston Area. Generally, past proposals by existing agencies have been endorsed both technically and financially. Front-end financing alternatives have not burdened the current users; however, the requirements of Section 204 (User Charge/ Industrial Cost Recovery) may significantly modify the future of treatment facility financing should more regional systems evolve in the areawide plan.

## Finance

One of the most critical and complex functions in the area of wastewater treatment is the financing of facilities. The Federal Water Pollution Control Act Amendments envision a designated management agency with the authority and capability to accept a wide variety of grants and raise revenue in a number of extremely sophisticated ways which are, in effect, regulatory in their impact. In addition. there must be a capacity to incur long- and short-term indebtedness in order to develop the types of improved and expanded facilities necessary to meet the 208 requirements.

### Legal Authority

Allocating financial responsibilities is a complex matter because of the many government entities that are involved. EPA and the State are a significant part of the financing process through their investments in local and regional facilities. It is expected that this kind of "layering" or joint federal, state, local (or regional) participation in facilities development will be continued in the future. While the exact parameters of governing legislation may change, the joint development pattern is likely to continue. In addition, user charge and industrial cost recovery are important requirements that must be met when EPA's Section 201 funds are used.

Those agencies identified earlier as potential candidates for allocation of responsibilities in the area of treatment plant construction and design generally possess the power as well to finance these responsibilities. Thus, the River Authorities, the Gulf Coast Waste Disposal Authority, cities, county governments, and local water districts all possess, to varying degrees, the legal authority to raise revenues, including the potential to assess wastewater treatment and user charges. All of these entities, to varying degrees, may legally incur short- and long-term indebtedness. In addition all of these entities may finance the construction of treatment facilities through the utilization of grants which they are eligible to receive from the federal and state governments under the Section 201 construction grant program. In the area of some of the more complex financial problems

alluded to above (e.g., industrial cost recovery), existing entities are currently far less capable of meeting the financial challenges of 208. In addition, some specific legal requirements, such as those relating to proportionate cost sharing, need to be clarified to establish the capacity of these entities to accept that kind of responsibility. Some statutory amendments may be necessary to allow designated management entities to use the more sophisticated financial tools which could be necessary to implement the 208 plan.

Financial Capability

As is noted above, legal restrictions to the financing function are not a major stumbling block. In the past wastewater treatment agencies have been successful in raising necessary funds. Furthermore, bond ratings in the Greater Houston Area enhance the ability to provide adequate financing.

Technical Competence

An excellent assessment of technical competence in finance is bond ratings. At present, ratings are high for those agencies that are involved in wastewater treatment. The availability of facility development funds has not been a factor in delayed construction.

Public Accountability

Voter approval for financing capital improvements has not been a problem in the region. Some questions have been raised, however, about particular user charges and the regional variations in user charges. The mechanism through which board members are elected to water districts provides for improved public accountability in much the same way that city councilmen are responsible to the voters for public works programs.

Political Acceptability

Houstonians are proud of the area's low tax rates. Many feel that this is one of the reasons for the area's recent growth. Thus, they are reluctant to approve any program that will increase costs. This will be a major problem as implementation tools involving either structural or nonstructural solutions will undoubtedly increase preceived costs. In addition, the chances for public approval of new financing devices (such as additional state taxes or income tax) are currently considered out of the question.

## Permitting and Regulation of Point Sources

The specific nature of this function is well understood regarding the State's and EPA's activities associated with discharge permits. The assessment of the permitting and regulation of point sources of wastewater discharge follows:

### Legal Authority

At present, the major responsibility for permitting and regulation of point sources is performed by the State and federal governments. The State is a participant in EPA's NPDES program, and its representative agency in this process is the Texas Water Quality Board. While the State's Department of Health Resources does comment on the design of treatment facilities, its participation in the point source permitting and regulation process is tangential to the major responsibility which rests, at present and is expected to rest in the future, with EPA and the Texas Department of Water Resources. Local input in the permitting and regulation process is confined to the review and comment process. Local water districts appear to possess restricted authority within their own districts and issue a limited form of point source permits through building sewer connections into their systems. However, this authority should not in any way be considered a point source permitting and regulation system as required by federal regulation.

### Financial Capability

Since the major responsibility for this function lies at the federal and State level, there is no significant financial input at the local level. Thus, this criterion is not a real assessment factor. There is, however, a time and cost associated with the obtaining of both the federal and State permits.

### Technical Competence

Specialized staff persons are required to accomplish this function. Both EPA and TWQB now have the staff capacity to undertake this function in the future, and if necessary, they can secure additional staff where appropriate.

### Public Accountability

There is a well-established and legally mandated series of hearings and review and comment procedures that are associated with the NPDES program. These procedures are required and are used to meet the legal mandate. The citizen's review process of the issuance of permits has resulted in complaints that their inputs were not followed.

## Political Acceptability

Since this program is well established, there is no real problem with its political acceptability.

## Permitting and Regulation of Nonpoint Sources

While, at present, there appears to be some difference of opinion regarding the degree to which nonpoint sources are significant contributors to water pollution, this analysis has looked at the powers that the candidate agencies could, if necessary, activate in controlling a variety of nonpoint source problems. In addition, the capabilities of these agencies have been assessed.

## Legal Authority

The unique nature of the Houston area makes it unlikely that formal land use controls such as zoning ordinances will be utilized to any degree of significance to reduce nonpoint pollution sources. However, aside from this major acceptability problem, there is legal authority among existing agencies to impose a variety of nonpoint regulatory controls that could reduce erosion, sedimentation, and urban runoff, all of which are causes of nonpoint pollution. These agencies are authorized to become involved in nonpoint regulation through a variety of mechanisms including subdivision controls, building codes, solid waste disposal regulations, and septic tank controls.

Typical of those agencies, not included but with authorities in the nonpoint area of control, are: U. S. Department of Agriculture, Soil Conservation Service, Soil and Water Conservation Districts, U. S. Army Corps of Engineers, and Clear Creek Basin Authority. The Soil Conservation Service, for example, is a federal agency that has been actively involved in erosion and sediment control. The County Soil and Water Conservation Districts have considerable expertise and knowledge regarding nonpoint source control problems and alternative solutions. These districts are uniquely equipped to help plan, manage, and implement portions of the state and areawide nonpoint source control programs. The Corps of Engineers has specific authority over discharge of dredged or fill material into navigable waters under Section 404 of P.L. 92-500. In addition, the Clear Creek Basin Authority, although with limited geographic scope and suffering from a lack of adequate financing authority, is attempting to promulgate regulations to control stormwater runoff. The State Department of Health Resources, which has no direct legal authority in this field, does exercise responsibility in the solid waste disposal area and thus has a potential role in a nonpoint control strategy. River Authorities similarly have implied authority in the nonpoint source regulatory area because of statutory language allowing them to develop legal means to conserve

soils against erosion. In addition, River Authorities are authorized to deal with septic tank permits; a regulatory program that is quite relevant to a regional nonpoint strategy. The Gulf Coast Waste Disposal Authority is involved in solid waste disposal which is a consideration in nonpoint source control. County governments, even without ordinance-making authority, have potentially broad powers in the area of flood control as well as the issuance and review of septic tank permits. This authority could be used relating to nonpoint source controls if the strategy offered flood mitigation in addition to nonpoint source control. The cities have numerous controls which may be linked to a nonpoint source program such as authority over septic tanks and regulations related to the Federal Flood Insurance Program. The City of Houston's potential nonpoint controls are especially significant since the the City may review development plans in their ETJ and determine, among other factors, nonpoint source controls.

Clearly from this discussion, jurisdiction over nonpoint problems at the regional level exists but is highly fragmented because of the legal interactions between control and political jurisdiction. Furthermore, controlling all the nonpoint source pollution problems stretches the viability of some mechanisms which have not been used for this purpose. More importantly, while many mechanisms exist, they presently are not part of an integrated legally authorized program to solve nonpoint problems.

Financial

The elimination or reduction of nonpoint sources through the use of structural solutions may be extremely costly if they are to be effective. While the costs associated with nonstructural solutions are not capital intensive, they too can be significant from an administrative perspective. Both costs must be better understood before the final plan is approved. Public costs must also be factored into this analysis since the administration and enforcement of nonpoint programs will, for many agencies, be a new cost. How this cost will be funded is also in doubt at this time since previous efforts in this regard have been small compared to what may now be required.

Technical Competence

Some experience with particular nonpoint control strategies does exist. But, as far as developing and operating a complete nonpoint control program as part of an integrated environmental strategy, no agency has the needed experience. Given a generally negative community attitude about control of land development, this is completely understandable.

## Public Accountability

The basic issues are how the costs of nonpoint control are to be allocated and how the mechanisms are to be selected. As long as this process is part of the 208 program, it will be subject to the participation rules and ongoing procedures of that program. Once 208 enters the implementation phases, the legal requirements which govern agency action as regards public hearings, standard setting, management, and other functions will be imposed. These procedures do offer the public a forum before action is taken. Certainly, the selection of control techniques requires technical expertise; but through public review and scrutiny of the selected alternatives and the cost impacts on the public, input may be made prior to plan selection and approval.

## Political Acceptability

The political climate for nonpoint controls in Houston is not very receptive. Any agency which attempts to institute nonpoint controls which impact upon the land development process, as many will, can expect to encounter severe resistance. A strong case for such techniques will have to be made that can convince the public officials and the community of the necessity for such action.

# Standard Setting

## Legal Authority

EPA has been mandated by Congress to be primarily responsible for the establishment of water quality standards, and the agency has been involved for some time in the development of discharge standards and effluent guidelines for all point source pollutants. The State of Texas, however, has the authority to set its own water quality standards for waters within the state. In the state the TWQB is the sole and exclusive entity granted authorization to set standards. What has occurred in the past and is anticipated to continue is that the State will continue to be primarily responsible for the establishment of standards. These standards will, in turn, be subject to review and approval both by EPA and local entities. This approach assures consistency and large-scale jurisdictional coverage for state water quality.

The State statutes which discuss standards in relation to local jurisdictions limit these entities to a review and comment role in the standard setting process. The 208 planning process has followed this general pattern, and it is unlikely that the standard setting process will be altered in the future. The 208 plan will recommend both uses and standards for area streams being studied.

Financial Capability

There is no financial restraint on the standard setting function at this time. The State has adequate resources to continue in their prime role regarding this function.

Technical Competence

Standard setting does require specialized expertise, and competence does exist to perform this function. While there is some debate about this process and the standards being imposed, much of it occurs outside the region at the EPA and State levels. What is unclear are the numerical standards necessary to meet water quality goals and their impact if adopted.

Public Accountability

Public input is requested and sought in this process to review standards. A problem in the past has been securing public participation in such a technical process.

Political Acceptability

Standard setting does not produce public problems except when local desires conflict with broader regional or national goals. Similarly, standards can produce political problems when the financial impact of a standard is viewed as excessive. There may be a gap between government and citizen goals and cost realities.

## Enforcement

Legal Authority

Enforcement of the 208 plan will require the use of a broad array of devices since the plan will undoubtedly require a complex implementation strategy. Wastewater treatment enforcement, at present, is a complex and uncoordinated process. Nonpoint control authority is especially unclear. Counties, for example, are without adequate enabling authority to play a major enforcement role.

EPA, on the other hand, has very strong and well-established authority in the enforcement area. This power will undoubtedly be maintained as the national 208 program evolves into a continued implementation phase. At the State level, the major enforcement role is that of the Texas Department of Water Resources. Where enforcement requires legal action, the Attorney General's Office works with the Texas Department of Water Resources. In addition to its

clear enforcement role, the Department of Health Resources exercises particular enforcement activities relating to those specific water concerns where it has nonconcurrent jurisdiction. However, this responsibility does not reach the level of comprehensiveness envisioned as part of an overall 208 enforcement program. On a regional basis, Gulf Coast Waste Disposal Authority does have limited enforcement powers relating to water quality but has not utilized them. River Authorities have the ability to encourage the development of collection systems to replace septic tanks. Cities in Texas also possess certain enforcement powers. The requirements of the Act call for the ability to refuse to accept certain wastes where they are not in compliance with established pretreatment standards. Water Districts also have very limited enforcement powers. Thus, the overall enforcement picture, both at present and as projected, is confused with a number of uncoordinated operating enforcement agencies.

Financial Capability

Effective enforcement of the 208 plan will be costly. At this point these increased costs have not been calculated or allocated. The serious questions of who shall pay and how go beyond the present system. The disjointed existing system is costly and probably wasteful due to the diseconomies of uncoordinated enforcement. Present penalties and fines not only lack uniformity but generally do not pay for the enforcement process. Overall, it appears that a complex system exists, and it does not and will not be economic without major revisions. What can be expected is that these costs will somehow be absorbed or passed on to the violator.

Technical Competence

The new rules that are increasingly technical will require a greater degree of agency sophistication. More technical staff, more equipment, and more research are all related to the 208 enforcement.

Public Accountability

The public rarely knows who is in violation unless a major incident is in response to public complaints. It is expected that reliance upon enforcement procedures uncovered through public complaint, given the difficulties and costs associated with other enforcement mechanisms, will continue.

Political Acceptability

Enforcement of wastewater quality requirements is viewed positively in general. However, where enforcement activities result in

political outcries from specific industries or communities, there are often numerous community reactions. Similarly, if enforcement affects growth or land development, its political acceptability is low.

## Monitoring

### Legal Authority

Of all the 208 functions, monitoring is probably the most confusing. Agencies at every governmental level, ranging from EPA down to local water districts, are now authorized to engage in the monitoring process. The reasons for these authorizations vary tremendously and reflect the special needs of each monitoring agency. In some cases it is to determine whether one's own operations are producing effluent within legal limits. In other cases it is a test for state health purposes or compliance with other State standards. Given the many uses of water within the state, it is unlikely that the current complex monitoring system is going to be radically changed by the 208 program. However, it can be hoped that there will be improved distribution of authority and sharing of information among agencies in order that duplication can be avoided and the costs of monitoring reduced.

### Financial Capability

Monitoring of nonpoint impact is a costly process. The 208 program appears to already dictate, as part of its implementation, an increased monitoring program. Thus, total costs are expected to rise. When this fact is added to the uncoordinated present system, changes must be contemplated.

### Technical Competence

The technology is available to have a sophisticated monitoring system. However, the means of financing and administering such equipment and staff is an unanswered question.

### Public Accountability

Public input in monitoring is through the complaint process. This simple device is a critical enforcement and monitoring input. Some persons want to increase public awareness by publishing test results regularly. Another problem of accountability is the self-reporting system. This system has experienced limited abuse through facility reportings that were not consistent with existing conditions. Attempts to improve grant approval have been made through reporting of significant noncompliances when only limited and occasional noncompliances existed.

## Political Acceptability

The present system of self-reporting and negotiations by monitoring agencies with violators is believed by the public to focus on the large polluters rather than the small polluters. Large polluters are subject to greater overview by enforcement entities as a matter of relative priorities.

## Management and Coordination

### Legal Authority

The 208 program envisions a broad management and coordination role for plan implementation, policy decision, and continuing management. Because of the complexity of managing and coordinating so many different actors, it is unlikely that a single present agency can qualify as the management and coordination entity. Some agencies, because of their geographic restrictions, are limited while others do not have clear legal authority to exercise such wide-reaching authority. On the other hand, some agencies may be coordinators on a board to implement the 208 plan.

### Financial Capacity

A major unanswered 208 question is how management coordination efforts will be funded. Once the 208 plan is developed, this question becomes acute. At present there is little precedent for financing a major regional coordination role like that envisioned by 208. The viability of the plan will be directly related to the ability to finance and the credibility of the agencies responsible for its administration.

### Technical Competence

The Houston area does not have an especially good record in regional coordination. The 208 planning program appears to be using technical resources in a meaningful way. The skills to do the job exist. Whether and how they will be used is a political question to be resolved during implementation planning.

### Public Accountability

The coordination role will be an especially visible one. It will require special ongoing efforts to get broad support and public input beyond the planning process. Decision making must be open to maintain credibility. The agencies involved in 208 implementation have legal requirements to meet and can ensure that the management coordinator meets this criterion.

Political Acceptability

The Agency or board responsible for this role must have a good public participation history and process. Furthermore, it must be able to coordinate without dominating the many other actors in the process. Probably this will result in a coordinating body versus a single responsible entity. Furthermore, the effectuation of the management role to be politically acceptable should, if at all possible, avoid legal changes in existing jurisdictional boundaries and agency powers.

# CHAPTER VI - SUMMARY OF ATTITUDE SURVEY AND PERSONAL INTERVIEWS

## General

An attitude survey and personal interviews of key selected officials were used to gain a better understanding of public receptivity to different levels of government performing the areawide water quality management functions. The attitude survey was conducted through a questionnaire mailed to approximately 500 individuals. Interviews with key elected officials were conducted in two phases at two levels of detail. The first interviews were used to familiarize the interviewees with the 208 process and to collect and verify data to be compiled in the Current Wastewater Management report. This series of interviews involved approximately 50 elected or appointed officials. The second series of interviews were conducted to determine key elected officials' reactions to the preliminary Broad Management Options that were to be developed into the report.

## Attitude Survey Introduction

The attitude survey was conducted through the use of a questionnaire which was mailed to a selected group of 504 public officials, industry representatives, civic leaders, and concerned citizens living in the H-GAC 208 designated planning area. This questionnaire was developed based upon possible management approaches that could be taken to comply with the requirements of P.L. 92-500. The questionnaire was also used as an information-gathering tool regarding the relative acceptability of the various types of entities that could perform the 208 management functions. A copy of the "Areawide Water Quality Management Questionnaire" is included as Figure 1.

The recipients of the survey questionnaire were classified into five major categories as follows: environmentally concerned citizens (50); members of the TAC, PAC, and Executive Committee (70); business and industrial leaders (52); elected officials including mayors and city council members (80); and water district board members (252).

Of the 108 responses received, 15 were from environmentally concerned citizens, 25 were from TAC/PAC or Executive Committee members, 13 were from business and industrial leaders, 14 were from mayors and City Council members, and 41 were from water district board members. The number of respondents represented 21.4 percent of the total questionnaires mailed.

## Survey Results

Question #1 of the survey dealt with the many tasks and functions which will be involved in improving and maintaining water quality in the designated 208 area. The respondents were asked to indicate the general level of governmental unit or public agency (i.e., federal, state, regional, etc.) that they thought should be charged with primary responsibility for a given function.

In response to Part A of question #1, 26.1 percent of all respondents indicated that municipalities should have the primary responsibility for providing funds for the construction of wastewater treatment facilities. This represents a somewhat large portion of the respondents and indicates that many citizens are probably unaware of the significant role the federal government plays in financing such facilities. Only 20.6 percent of all respondents felt that the federal government should be responsible for this task.

Part B indicated strong support for state government (41.2 percent of respondents) and regional government (25 percent of respondents) to perform the function of preparing and updating plans for improving and maintaining water quality. Parts F and G also dealt with planning, and results were similarly grouped between state and regional preference.

In Part C the strongest support (24.5 percent) was given to a state role in the control and dispersal of funds for design and construction of wastewater treatment facilities. This preference generally follows the present system of state-determined priorities for EPA federal funds. It should be noted that only 6.5 percent of all respondents felt the federal government should play a role in this function. This seems to indicate an overall consensus of opinion that more localized units of government should control designation and distribution of funds for treatment facilities.

Part D of the survey showed very strong support for local agencies, either municipalities (43.4 percent of the respondents) or water districts (40.1 percent), to operate and maintain wastewater treatment facilities.

Among elected officials and PAC/TAC respondents, there was rough parity in the preference for either state or regional agencies to coordinate planning for clean air, water, transportation, and other public services. The environmental citizens, however, expressed a strong preference for this coordination to come from a regional entity (53 percent versus 26 percent for state), and the water district board members expressed an opposite preference (48

percent for the state versus 14 percent for regional). On an overall basis, the respondents preferred the state (39 percent).

The survey results in question #1 also showed a strong preference for local entities to perform the function of billing and collecting charges for water and sewer services. Approximately 45 percent of all respondents said they would like to see municipalities perform this function while 42.4 percent preferred the water districts.

The respondents indicated clear support for state performance of four of the remaining tasks contained in question #1. They felt that the State should be primarily responsible for providing programs for public education concerning water quality (42 percent of all respondents), setting water quality standards for streams (65 percent), performing stream sampling and laboratory analysis to check water quality (45 percent), and reviewing publicly funded projects for consistency with water quality objectives (58 percent).

Question #2 of the survey asked the respondents to address the question of coordination of the various management functions. The question involved whether a single agency be given the authority for coordination or should a coordinating group or board be established. Three of the five groups favored giving one agency the task of performing the coordination function. However, the total response was closely split between the two alternatives, with 48 percent favoring the one agency approach and 42 percent in favor of the group or board approach. The remaining 10 percent of the respondents either gave no response or preferred an alternate approach. Thus, there did not seem to be a clear preference among the respondents for either of the alternatives mentioned.

Similar results were found in response to question #3 regarding whether the coordinating agency for water quality should be the same entity charged with coordination of other area concerns. The total response was 44.4 percent in favor, 45.4 percent opposed, and 10.2 percent either did not express an opinion or were unsure of their preference.

Question #4 dealt with the issue of raising funds to provide public services. There was strong support among all the groups for the utilization of user charges as a means of raising funds for wastewater treatment. On an overall basis, 58.3 percent of all respondents favored this financing method. In addition, 38.9 percent of the total group identified revenue bonds as an acceptable financing mechanism, and 28.7 percent of the respondents approved of the use of property taxes in paying for public services.

Question #5 was included in the survey questionnaire in an attempt to gauge public opinion regarding the possible use of areawide strategies to encourage future land development and population growth at particular locations. The answers to this question were rather dispersed among all of the given alternatives, and as a result, no clear preference could be determined. In total, the largest portion of the respondents (28.2 percent) favored such an areawide strategy only if it would result in lower public expenditure and less environmental damage.

In response to question #6 regarding preferred patterns of development in this area, the group favored a dispersed-growth-with-low-densities approach or, more or less, a continuation of the current conditions. The environmental group, in particular, showed strong support for the continuation of present patterns. Among total respondents, the least favored pattern of development was a concentration within existing large cities such as downtown Houston.

Nonpoint source pollution was the subject of question #7. In this question the respondents favored a control strategy which would combine both structural and nonstructural approaches to the problem of nonpoint source pollution. The business/industrial, elected officials, and water district groups all strongly favored a combination of strategies, while the environmental citizen and the TAC/PAC groups were roughly divided between nonstructural and combination approaches. None of the groups indicated strong support for the use of structural approaches alone.

## Summary of Conclusions

In analyzing the results of the water quality management questionnaire, it must be pointed out that the survey was not and could not be conducted on a statistical basis, nor was it intended to be a statistically valid attitude survey. Thus, the responses received cannot be assumed to represent the opinions and attitudes of the population taken as a whole. Valid conclusions regarding attitudes toward water quality management can only be drawn in reference to those who actually responded to the survey questionnaire. Nonetheless, the results of the survey do give an indication of the general perceptions and opinions of at least some of the members of the five different categories of respondents.

It should be noted that the overall response rate was disappointing in light of the structured sample--all persons included in the sample have some involvement with water quality concerns. However, this same group (public officials, civic leaders, etc.) may be considered to be least likely to respond to a mail questionnaire.

It may be that response would have been greater had the 208 program been identified specifically. The H-GAC was not mentioned in the questionnaire to avoid a possible response bias; however, this strategy may have been responsible for a lower than expected return rate.

As previously discussed the responses to some questions did not indicate strong feelings or preferences in one direction or the other. However, in other areas, preferences were evident. On an overall basis, the respondents indicated that operation and maintenance and billing and collection activities should be performed at the local entity level. Strong support was also shown for the performance of the planning and standard-setting functions at the State level. In addition, heavy preference was noted for the use of user charges to finance wastewater treatment and for the continuation of present development patterns. As far as the important activity of coordination of management functions is concerned, the respondents did not appear to be significantly in favor of any one approach over the others. Thus, as might be expected, the respondents appear to favor those approaches which most closely resemble the status quo.

For those who might be interested, survey information relating to responses received was compiled on a detailed basis by question and by response group and is available for review in the project workpapers at H-GAC.

FIGURE 1

**Arthur Young & Company**
in association with
Team Four Inc

2500 PENNZOIL PLACE
711 LOUISIANA STREET
HOUSTON, TEXAS 77002
(713) 224-9231

April 1977

This questionnaire is being sent to you as part of a Water Quality Management Planning Program being conducted in this area. Arthur Young & Company and Team Four have been retained to develop management recommendations for the plan.

The purpose of this questionnaire is to enable us to better understand your perceptions and opinions concerning the levels of government that might undertake the required water quality management functions.

Please fill out the questionnaire, and return it on or before April 29 in the enclosed envelope. You will note that at the close of the questionnaire we ask a basic question which will enable us to categorize your responses.

Your responses, comments, and suggestions will greatly assist in the effort to provide for improved water quality management in the Houston area.

Thank you for your assistance.

Very truly yours,

Jerry C. Coffey
Project Manager
Arthur Young & Company

AREAWIDE WATER QUALITY

MANAGEMENT QUESTIONNAIRE

1. Some of the many tasks that are involved in improving and maintaining water quality in this area are listed below. Please indicate the general type of governmental unit or public agency that you think should be charged with primary responsibility for a given task by checking the appropriate box.

| | Federal | State | Regional | County | Municipality | Water Dist. |
|---|---|---|---|---|---|---|
| A. Provide funds for construction of wastewater treatment facilities. | | | | | | |
| B. Prepare and update plans for improving and maintaining water quality. | | | | | | |
| C. Control and disperse funds for design and construction of wastewater treatment facilities. | | | | | | |
| D. Operate and maintain wastewater treatment facilities. | | | | | | |
| E. Abate pollution from debris, soil, chemicals, and such washing into treatment facilities and streams. | | | | | | |
| F. Maintain and analyze information on changes in population and uses of land. | | | | | | |
| G. Coordinate planning for clean air, water, transportation, and other public services. | | | | | | |
| H. Provide programs for public education concerning water quality. | | | | | | |
| I. Set water quality standards for streams. | | | | | | |
| J. Provide billing and collection of charges for water and sewer services. | | | | | | |
| K. Coordinate land development plans with existing or planned sewage treatment capacity. | | | | | | |
| L. Perform stream sampling and laboratory analysis to check water quality. | | | | | | |
| M. Review publicly funded projects for consistency with water quality objectives. | | | | | | |

2. In order to meet federal requirements, a system to manage water quality functions must be specified. Which of the following approaches do you favor to coordinate the various management functions?

A. Giving one agency the authority for coordination . . . . . _____

B. Establishing a coordinating group or board . . . . . _____

C. Other (specify) . . . . . _____

3. Should the coordinating agency for water quality be the same entity charged with coordination of other area concerns including air quality, transportation, and solid waste?

A. Yes . . . . . _____

B. No . . . . . _____

C. Don't know . . . . . _____

4. The best method to raise funds to provide public services such as wastewater treatment is: (Please check as appropriate)

A. Property taxes . . . . . _____

B. Revenue bonds . . . . . _____

C. Federal revenue sharing . . . . . _____

D. Government grants . . . . . _____

E. User charges . . . . . _____

F. Income taxes . . . . . _____

G. Other (please specify) . . . . . _____

5. Do you favor areawide strategies to encourage future land development and population growth at particular locations? (Please check one)

A. Yes, definitely . . . . . _____

B. No, definitely . . . . . _____

C. Only if it would result in lower public expenditure and less environmental damage . . . . . _____

D. Only if it would result in less environmental damage . . . . . _____

E. Only if it would result in lower public expenditure . . . . . _____

F. Only as a last resort to prevent the federal government from making land use decisions . . . . . _____

6. If you could choose a preferred pattern of development in this area, which of the following would you favor? (Indicate order of preference, e.g., 1-most favored to 5-least favored)

A. Concentration within downtown Houston (inside Loop 610) . . . . _____

B. Concentration within existing large cities (such as Houston, Pasadena, or Baytown) . . . . . _____

C. Concentration at major outlying centers of development (such as the Woodlands or Clear Lake) . . . . . _____

D. Dispersed growth with low densities . . . . . _____

E. Present patterns . . . . . _____

7. There are two major ways of controlling water pollution caused by debris, chemicals, soil, and other elements washing into streams during rainfalls. Which of the following would you favor? (Please check one)

A. Structural approaches such as construction of collection and treatment facilities to decrease pollution from runoff . . . _____

B. Nonstructural approaches such as erosion control ordinances, street sweeping, and subdivision regulation to decrease the liklihood of pollution from runoff . . . . . _____

C. A strategy combining both approaches . . . . . _____

8. Space is provided below for comments you may wish to make on current and future water quality management in this area. If more space is needed, please attach additional sheets to this form.

A. Comments on <u>current</u> water quality management: _____

_____

_____

_____

_____

B. Suggestions for <u>future</u> water quality management: _____

_____

_____

_____

_____

9. Which of the following would best describe your primary affiliation? Please check one as appropriate.

| | | | | | |
|---|---|---|---|---|---|
| State Government | _____ | Municipal Government | _____ | Civic Group | _____ |
| Regional Agency | _____ | Water District | _____ | Other | _____ |
| County Government | _____ | Business/Industry | _____ | | |

10. Are you an elected official? Yes _____ No _____

* * * * *

Thank you for your cooperation.

## Key Interviews Introduction

Key interviews were conducted at two points during the management analysis project to obtain necessary inputs. The initial set of interviews was conducted to verify information that was contained in the Current Wastewater Management report and to develop mutual understandings of 208 plan concerns. The initial interviews were conducted with all county judges, executive directors or key management representatives of regional agencies, key management of major state water agencies, regional Environmental Protection Agency representatives, regional representatives of water-related federal agencies, mayors or city councilmen of cities directly involved in the 208 plan development, and a wide range of elected members of various forms of water districts. Over 50 interviews were conducted using a standardized data collection format. Discussions included a description of the steps and process through which a management plan was to be developed.

Later on in the project, detailed interviews were conducted with key elected officials or their representatives to determine specific reactions to the preliminary Broad Management Options for later inclusion in the report. These interviews began with a project status update and an overview of the levels of government that were being considered as candidates to perform major management roles. Eight detailed interviews were conducted with officials from the cities of Katy, Houston, Pasadena, and Baytown and from the Houston-Galveston Area Council, Gulf Coast Waste Disposal Authority, and Harris County.

## Key Interview Results

Presented below are summaries of the comments and concerns obtained during the interviews. The identification of the interviewee has been removed to enable a more specific forcus on the issues, concerns, and impact on broad management options. Each interviewee was encouraged to be specific and results would be summarized to indicate future areas of emphasis.

The results of the interviews are summarized under the five major types of management functions required under the 208 program.

- Regulatory and Compliance Functional Group

  - Permitting and Regulation of Point Sources
  - Monitoring
  - Standard Setting
  - Enforcement

- Planning Functional Group

  - Planning

- Wastewater Treatment Functional Group

  - Operation and Maintenance
  - Design and Construction
  - Finance

- Nonpoint Source Control Functional Group

  - Permitting and Regulation of Nonpoint Sources

- Management and Coordination Functional Group

  - Management and Coordination

## Planning

In general, water quality planning and analyses were identified as activities that were desired to be performed at the local level of government with required coordination with the State. Reactions to the allocation of this planning functional assignment from local municipalities, regional entities, and the State were favorable. Strongest support was evidenced for H-GAC to be responsible for planning data collection and analysis with the State continuing their traditional planning role.

The larger entities with multiple treatment facilities expressed a desire to continue treatment capacity and long-range planning. Larger entities consist of major municipalities and regional agencies other than H-GAC. Mayors of several cities expressed an interest in a regional planning program for wastewater treatment that would place increased emphasis on near-term needs. One respondent expressed support for H-GAC to have the primary planning responsibilities and to be the designated pass-through agency for the receipt of federal 201 construction grant funds. Other elected officials stated that H-GAC was their only forum for the collection and evaluation of planning information and a meaningful citizen input process. In summary, there appears to be support for H-GAC continuation of their 208 role in the planning function.

## Regulation and Compliance

All interviewees felt that the State should continue their primary role in the issuance of permits, establishment of regulations, setting of stream standards, monitoring, and their enforcement

roles. Most of those elected officials interviewed preferred a strengthening and expansion of the local review role of these State regulatory functions and believed better coordination of local review activities would improve their effectiveness in their relations with the State. Local cities involved in wastewater treatment generally expressed concerns regarding any strengthening of the State regulatory role. Most local officials felt that the State should become less active in the local decision-making process. In conclusion, the State was preferred to continue this mandatory regulatory role.

Wastewater Treatment

All elected officials interviewed were supportive of continued design, construction, and operation of treatment facilities by existing local entities or those that may be created in the future. Many, however, expressed some concern over the treatment and efficiency of other entities' local agencies and protracted time required to implement needed facilities. Representatives of smaller cities expressed an interest in contracting for facilities operation and maintenance to a future coordinated regional entity. One city official expressed interest in H-GAC's Project Review Committee and the Executive Committee being the forum for setting 201 construction grant request priorities and the associated fund dispersal.

It was also determined that several elected officials were generally unfamiliar with the authority of agencies such as the Gulf Coast Waste Disposal Authority. Others were not aware that H-GAC has limitations regarding their activities in implementing physical projects. In summary, those entities currently responsible for design, construction, finance, and operation and maintenance are expected by the local agencies and the State to continue their present treatment management roles.

Nonpoint Source Control

Nonpoint sources of water pollution are being further defined regarding their status as a potential problem. Comments were sought from elected officials. Several city officials and a regional entity expressed concern regarding problems if uniform policies for control of nonpoint sources of pollution are implemented. It was emphasized by several through specific examples that treatment and control strategies must be flexible to be effective in various parts of the region. Stormwater runoff was cited as an example. The conclusion from the interviews was that a series of nonpoint controls for various physical conditions may be required to provide local flexibility to effectively solve these problems as their cause and magnitudes are identified.

Management and Coordination

All regional entities were in favor of some form of a coordinating board or council. Candidate entities identified for inclusion on such a council or board included: the City of Houston, Houston-Galveston Area Council, San Jacinto River Authority, Gulf Coast Waste Disposal Authority, and a representative of the State appointed by the Governor. It was generally expressed that no entity could be selected and accepted as the single agency responsible for management and coordination. Elected officials stated that a coordinating board or regional management entity should be composed primarily of elected officials. Some interviewees stated that a limited number of citizens and environmentalists should be appointed to the coordinating board. Several interviewees expressed the belief that a forum similar to the H-GAC Projects Review Committee and the Executive Committee would be an acceptable final management and coordination arrangement. Counties want to retain a role even though they now have rather limited involvement in wastewater treatment. A concern was expressed regarding the State and its political unacceptablity as the management and coordination entity. General concern was expressed by some interviewees that the City of Houston would dominate the management and coordination role. They, however, recognized the fact that the City of Houston has more treatment works than the other entities combined and has jurisdiction (ETJ) over the majority of the 208 designated area. In summary, it appeared that a board or council composed of those entities most involved in local and regional wastewater treatment was favored.